

July 1943

JUL 13 1943

CONSUMERS' RESEARCH

Bulletin



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CONSUMERS' RESEARCH



Vol. 12 • No. 1

BULLETIN

July 1943

Off the Editor's Chest

THE eating habits of the people in this country are scheduled to undergo drastic changes, if current plans of the War Food Administration and some economists who are now busying themselves with food problems are successful. In the language of the professor-planners, our whole nation is to be shifted from a "meat economy" to a "grain economy." The reasoning is that permitting the feeding of meat animals, particularly beef, and then allowing people to consume the meat involves very inefficient use of manpower and grain. If the grain is fed *directly* to human beings, several times as many people can be fed with a given amount of grain and a minimum amount of manpower—so runs the argument.

According to Dr. D. A. Fitzgerald, deputy director of the War Food Administration, the American public is accustomed to a "luxury diet" that requires large amounts of labor and feed for animals. From the standpoint of "food values," this government official asserted that vegetable (rather than meat) protein is most economical in a wartime diet. The protein that has been served on the average American table in the form of roasts, steaks, chops, hamburger, and eggs is hereafter to be provided in the form of wheat, dried beans, soybeans, and peanuts, and other cereal and vegetable foods.

Since Chester Davis, presently filling the office of Food Administrator, has put his seal of approval on the same ideas, and since a similar view has been put forward in half a dozen quarters in the past few weeks, we may take it for granted that the plan of putting American consumers on a "grain economy"

has the Administration's official blessing.

The average consumer, whose contact with the livestock problem is confined to his purchases of meat at the local butcher shop, knows that meat and poultry are difficult to get in most sections. Many are cheerfully tightening their belt and doing without foods which they believe they need for maximum productivity and good health in the hope that the present shortages represent a temporary phase of adjustment that will be righted in time. All present indications are that the shortage is *not* a temporary one, but is likely to continue for a long period, for the reason that while our meat supply appears to be ample for our own and our Army's needs, it is hopelessly insufficient to feed all the undernourished people in Europe and other parts of the world.

In a compact summary entitled "The Nation's Protein Supply," issued by the Food and Nutrition Board of the National Research Council, the following appears:

"It is apparent that the American people are in no immediate danger of experiencing a deficiency in the protein supply. It is equally evident that *should this country be called upon to export a very considerable proportion of its high-protein foods, a protein shortage might occur unless in the meantime appropriate measures are taken to prevent it.* . . . The demand for high-protein foods, of the sort to which we and the British are accustomed, may exceed the production facilities of the two countries,

(Continued on page 31)

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Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; CR—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; **a quality judgment is independent of price;** 42, 43—year in which test was made or information obtained or organized by the staff of Consumers' Research.

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CONSUMERS' RESEARCH BULLETIN, issued monthly by Consumers' Research, Inc., Editorial and Publication Offices, Washington, N.J. Single copy 30c. Subscription price (12 issues) \$3 per year, U.S.A.; Canada and foreign, \$3.50. For libraries, schools, and colleges, a special subscription of nine monthly BULLETINS (October-June, inclusive) is available at \$2; Canada and foreign, \$2.50. Responsibility for all specific statements of fact or opinion at any time made by Consumers' Research lies wholly with the technical director and staff of the organization. Entered as second-class matter November 9, 1934, at the Post Office at Washington, N.J., under the Act of March 3, 1879; additional entry at Easton, Pa. Copyright, 1943, by Consumers' Research, Inc., Washington, N.J. ★★ Printed in U.S.A. ★★ CONSUMERS' RESEARCH BULLETIN is on file in many school, college, and public libraries and is indexed in Industrial Arts Index and in the Readers' Guide to Periodical Literature.

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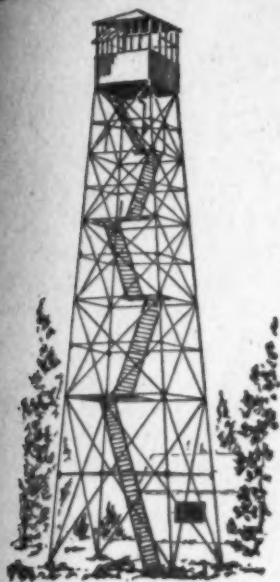


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The Consumers' Observation Post

may well be serious. In doing so they will be helping to increase the food supply in general.

* * *

COCKTAILS AND MUSHROOMS do not mix well according to researches at the University of California. Two women ate mushrooms from the same source which were known to be of an edible sort. One woman, however, became quite ill. It was discovered that she had had a cocktail immediately before eating the mushrooms, and one of the University's experts on botany pointed out that several reports have been received from Europe of illness resulting when alcohol and mushrooms were consumed together.

* * *

THE PURCHASE OF NEW STANDARDIZED RECEIVERS is being urged as a solution to the problem of consumers who may need repair jobs done on their present radio receivers. Not emphasized, however, is the fact that a new receiver such as is projected for this purpose would cost around \$20, which is a lot more than the average or even an exceptional repair job is likely to come to. The proposal, which comes from certain elements of the radio manufacturing industry, is hardly calculated to make efficient use of critical materials; it would undoubtedly save the time of the few servicemen left to carry on repair work, though at a high price to the consumer.

* * *

COSMETICS are still considered necessary to civilian morale. The War Production Board has apparently given up the effort to decide on what are essential and what are not essential cosmetics, for as yet there has been no government directive drastically curtailing production of any particular class or type of product. Shortages of materials, packaging, transportation, and help, all combine to hold down production. There has been a 50 percent cut in alcohol which has been met to some extent by promoting concentrated perfume rather than eau de cologne or toilet water. Restriction on the use of glycerin is the current headache, although some eleven substitutes are available, on which research as to efficacy and complete safety to users is still incomplete.

* * *

REPORTS THAT GASOLINE is being dumped back into the ground and that refineries are closing for lack of storage facilities continue to turn up. One Congressman from Pennsylvania is trying to get an investigation of a situation in western Pennsylvania, where thousands of gallons of refined gasoline were dumped back into the earth where they came from, while war workers were reported to be unable to obtain enough gasoline to get to work. This absurd situation is no doubt the logical working out of the OPA's so-called "Share and Share Alike" rationing doctrine. What New York City can't have for sheer physical impossibility of making adequate deliveries, people in the sections where gasoline is overabundant and going to waste can't have either. The idea seems to be that it is Americans' obligation nowadays to be miserable together, at the same time, and subject to the same disadvantages, regardless of the resources or peculiar circumstances of a given state or region.

NEW METHODS FOR ASSURING ADEQUATE FOOD PRODUCTION are continually being devised. One of the most ingenious is the plan worked out by twenty Atlanta businessmen who organized the "We Will Eat Club." They located a farmer with adequate facilities to grow vegetables and feed hogs and beef cattle as food for themselves and their families, each member paying the farmer \$5 a month which is credited against the member's account for vegetables at wholesale prices. Each member buys his own livestock and pays the farmer to feed it. This is an interesting example of how consumers and farmers can work together for mutual service and advantage.

* * *

COPPER OR BRONZE SCREEN WIRE (which is no longer readily purchasable) can be preserved by a coat of clear varnish, preferably the long-oil spar varnish which is suited to weather exposure. Varnish as it comes from the can will perhaps be too thick, as a rule, for satisfactory use on screen wire. It may be diluted with linseed oil and turpentine, using two parts of varnish to one part of linseed oil and one part of turpentine. If it is not desired to keep the copper color of the screens, a pigmented paint may be used which will be more durable than a transparent varnish. The varnish or paint should be applied with a special applicator, not a brush. Such applicators, which consist of a pad of wool carpeting with a handle, can be had at paint stores or from the large mail-order houses, at around 10 cents each. Either type of protective coating on wire screens, whether they are of copper, bronze, galvanized, or black enameled wire not only prolongs their life but helps to prevent the staining of light painted walls beneath the windows.

* * *

RATIONING OF EGGS is reported to be under discussion between Department of Agriculture and OPA officials. Eggs are needed for the Army, for the dried egg powder that goes to Allied Nations under the Lend-Lease program, and for Axis prisoners brought to this country from North Africa. Supplies remaining for U.S. consumers are estimated to be something like two dozen per month per person. All eggs put into cold storage after May 31, 1943, are to be reserved for government use. Consumers with excess supplies and proper facilities may wish to do a little storing of eggs on their own account. Clean fresh eggs may be preserved for some ten months in an earthen jar if they are thoroughly covered with a solution of water-glass (purchasable in drug, hardware, and other stores) and kept in a cool place. (Directions are on the can.) Eggs put down in this manner are excellent for cooking or baking, or can be scrambled. The whites in time become somewhat too watery for fried eggs of attractive appearance.

* * *

THE MANUFACTURE OF THE SO-CALLED DELUXE ICE CREAM or any ice cream of high quality is difficult now, as the result of the government's Food Distribution Order No. 8. According to a study made by two Pennsylvania State College professors, most ice cream previously contained more "milk solids" than the 22 percent now permitted. They point out that when butterfat content is lowered, as is now required, it is customary to increase the amount of milk solids used. Now, however, that milk solids are restricted to 65 percent of the amount used last year, the manufacturer who wishes to maintain enough volume to operate profitably has no choice but to turn out an inferior product. Experiments are being carried on to discover a satisfactory ice-cream mix by adding oat flour, wheat flour, and wheat starch in amounts up to two percent to give a satisfactory texture. Here is another of those cases frequently encountered, where government directives and orders encourage—if not actually compel—adulteration and deterioration of quality of consumers' goods.

* * *

HOME POULTRY FLOCKS may help save money on the family food budget. Fifteen hens, for example, might reasonably be expected to supply a family of four with \$80 worth of eggs and poultry meat during a year, according to a leaflet entitled "The Home Poultry Flock," by H. M. Butterfield, available from the University of California Press, Berkeley, California, 2 copies, 4 cents each. The pamphlet estimates that a saving of some \$30 can be made in a year's time with this small flock after all cash expenses have been covered. There is, however, some danger of the government's restricting home poultry-raising by stopping sale of feeds suitable for young chicks (see the editorial in this issue).

(The continuation of this section is on page 29)

Street or Walking Shoes for Women

Now that automobiles for pleasure driving are "stabled" for months at a time in many sections of the country, and other transportation facilities are overcrowded, women are doing more walking to market, to the movies, to Red Cross and other activities.

With the need to walk more, and with shoes sold only on a ration basis, the average woman is showing an increased interest in the quality and comfort of her footwear. Those who are not already equipped with a stout pair of walking shoes will undoubtedly spend one of their precious shoe coupons as soon as they discover how fatiguing it is to walk in a high-heeled or flimsy sandal-type of shoe which served well enough in days when the automobile took one everywhere.

Those who have not used their "Coupon 18" for shoes should consider the problem of the scarce supply of good shoes before purchasing a pair of summer white shoes; and many may be well advised to select a shoe that can be worn on the street well into the fall instead. According to a recent OPA release, the present shoe rationing system is making it difficult for retailers to place their orders well in advance because they do not yet have enough ration coupons to cover their shipments of shoes ordered but not yet delivered. Although the OPA has belatedly somewhat eased the requirements for retailers, there appears to be more than a possibility that fall stocks may be late in arriving, and women in urban areas particularly should remember this in using their current shoe ration stamp.

Having in mind that many women will undoubtedly wish to purchase shoes that can be worn beyond the summer season, Consumers' Research made its selection of women's shoes for test from available stocks of tan or brown street shoes. In so far as possible the true walking shoe, which is a stout oxford with a wide flat heel, was not selected, in the belief that most women as yet will compromise with comfort and durability in favor of some degree of fashion. Styles were selected which could be worn with a suit or tailored dress by the commuter or morning shopper in the city.

All sixteen makes of shoes were carefully examined by a competent orthopedist for design and construction. On the basis of construction, shape of toe, and heel height, none could be rated *A* as a shoe for extensive walking. During this examination it became apparent that from faults inherent in the construction of the shoes, there was not one which would keep its shape and good appearance for any great length of time and wear. All of the shoes would probably be unacceptable in appearance in one or more respects long before they were worn out.

In view of this observation, characteristically applicable to women's shoes, tests for durability of sole and upper leather were not made. Instead, the shoes were all given a specially devised test to determine their ability to withstand without undue distortion or discoloration damp weather such as that to which they might be subjected if their wearers were caught out in a sudden rain

storm without rubbers and were obliged to walk several blocks before reaching shelter.

This was accomplished by two methods. In the first, a double thickness of soft cleansing tissue (paper) was soaked in water and laid on the upper leather of the inner surface of the shoe over its whole length. The tissue was allowed to dry and the effect of the long-continued wetting in distortion of the leather, discoloration of it, and the transfer of color from the shoe to the cleansing tissue were observed.

By the second method, the shoe was set in water to a depth of about 0.8 inch, and the time noted at which penetration of moisture observable on the inner surface of the shoe occurred. The shoes showed extraordinary differences with respect to this matter (which is a very practical one, from the wearer's standpoint, in any climate where a sudden rain or snow could occur). The time for first penetration of moisture ranged from six minutes to over four hours. While this test may seem over severe, it was not so in fact because even the shoes with very good sole construction would have let moisture pass through in a fairly short time had they been walked on in water, since the effect of actual walking is to open up minute interstices between sole and upper and so to favor the penetration of water to the inside.

The selection of brands was made after consulting the classified telephone directories of San Francisco, New Orleans, Denver, Boston, Philadelphia, and New York City, as well as advertisements in various wo-

men's magazines. The major factor in determining the rating was the design and construction details; in these the shoes showed remarkable and unmistakable differences, clearly indicating the degree to which makers of women's shoes put their ingenuity and care on other features, rather than the qualities that make for lasting comfort and long life.

The average consumer would be amazed to watch an expert examining shoes for defects, points that are seldom thought of in making a purchase. Are the seams smooth, particularly in the toe and at the throat where the tongue is fastened? Will the lining wrinkle? Is the heel pad properly shaped, like a shallow saucer, to fit the wearer's heel or is it bumpy to cover too prominent heel nails? Is the sole strong, yet flexible? Is the counter resilient? Is the heel low, broad, and properly placed directly under the heel of the wearer? Is the insole in one piece and free from wrinkles? Does the sole extend the full length of the shoe or just to the heel? Is the heel attached to the sole or to the upper? These are a few of the important questions to be answered in selecting a shoe of good design and construction.

The height of heels has been given in inches for the consumer's convenience rather than as customarily measured by the trade. Heights are now restricted by government order to $2\frac{1}{8}$ or $2\frac{5}{8}$ inches (trade method of measurement).

B. Intermediate

I. Miller Ingenue Flyweight (I. Miller & Sons, 41-10 23rd Street, Long Island City, N.Y.) \$8.95. Modified moccasin type, step-in pump. Brown. Built-up leather heel, $1\frac{1}{2}$ inches high, broadest and one of the best heels in group, being well



I. Miller Ingenue Flyweight and the Stetson

placed, directly under heel of wearer. Had no counter, an omission which may cause shoe to lose shape quickly, especially if shoehorn is not used. Toe soft and likely to lose shape and good appearance more quickly than a box toe. Linings and seams comparatively smooth. Among the less satisfactory of the shoes from the standpoint of water penetration. Appearance of heel adversely affected by wetting. Stood up very satisfactorily in the wetting test on the upper leather.

Stetson (M. N. Arnold Shoe Co., South Weymouth, Mass.) \$10.95. "Contour lift," Style 3687, tailored step-in pump with flap. Brown. Leather covered wooden heel, $1\frac{3}{4}$ inches high. Ranked with *Arnold Authentics* as having next to the best heels of the lot. Counter, strong and resilient. Heel lining of good construction, but its area should have been greater. Toe had fabric lining which was wrinkled and inside of tongue was rough. Seams otherwise smooth. The "contour lift" was a scaphoid pad of dead sponge rubber, to provide a "talking point" no doubt, since it could serve no effective purpose unless it were specifically needed for a particular foot condition. Such a pad should never be found in a shoe for normal or general use. There was a bump in the heel pad where the heel of the wearer would rest, whereas this portion should have a slight concave curvature to fit properly. About average performance in the water penetration test. In the wetting test on the upper leather, the upper was badly

puckered and distorted and there was some, though slight, loss of color.

Less satisfactory than the two brands preceding but probably meriting a B rating:

Arnold Authentics (M. N. Arnold Shoe Co.) \$10.95. Labeled "Arnold Glove Grip." Hunter oxford. Tan. Built-up leather heel, $1\frac{3}{8}$ inches high. Ranked with *Stetson* as having next to the best heels of the lot. Counter, strong and resilient. Toe soft but should have been higher. Tongue may wrinkle on the inside and cause friction because of its type of construction. There was an insole only in the heel part of the shoe, which is a disadvantage for several reasons; one is that the leather in the ball of the shoe may crack with wear and so cause rapid wear of stockings. Considerably below average in the water penetration test. Performance in other wetting test, about the same as *Stetson*.

Florsheim (Florsheim Shoe Co., 541 W. Adams Street, Chicago) \$10.95. "Brogies," a tailored pump, Style 2007W, open toe. Very light tan. Leather covered wooden heel, $1\frac{3}{4}$ inches high. Heel lining of unsatisfactory type. Toe soft, with leather lining that had a slight tendency to wrinkle. Had a slight bump at center of heel pad where wearer's heel would rest, instead of being slightly concave. Especially good performance in water penetration test and especially good performance in other wetting test, though some darkening of color (staining) was noticeable.

Hanan (Hanan & Son, 671 N. Sangamon, Chicago) \$7.95. "Career Girl," Model 9031, pump. Brown. Celluloid-like composition covered wooden heel, $1\frac{3}{4}$ inches high. Counter not strong or resilient. Heel lining of satisfactory construction but had tendency to wrinkle. Seams smooth, on the whole. Had small bump in center of heel pad where wearer's heel would rest. Among the best of the shoes tested in per-



Arnold Authentic, Florsheim, Hanan, and Walk Over

formance in the water penetration test. In other wetting test, uppers showed considerable puckering with loss of color and slight darkening due to the contact with water.

Walk Over (George E. Keith Co., Brockton, Mass.) \$7.95. Style 8239B, Walmar last, step-in pump with flap. Brown. Composition covered wooden heel, $1\frac{1}{8}$ inches high. Counter only fair. As to toe height, one of the best shoes in the lot. Toe lining had a slight tendency to wrinkle. Seams smooth. Had undesirable sponge rubber scaphoid pad inserted as an arch support—a most undesirable feature for the average foot. Had small bump in center of heel pad. Among the best of the shoes tested in performance in the water penetration test. In other wetting test, considerable puckering of leather on inside. Negligible loss of color and practically no staining.

C. Not Recommended

British Walkers (J. P. Smith Shoe Co., Chicago; Montgomery Ward, Baltimore, Cat. No. D23-7570). \$11.95. Labeled "Smith Synchroflex 240." Modified moccasin pump. Brown. ¶One expert believes that it is difficult if not impossible to obtain a good fit by mail using the customary methods, since the drawing of the foot sent with the order cannot show what the relative shortening will be when the foot is elevated by the heel; this shortening is determined by the height of the heel of a particular shoe and by the condition of the purchaser's arches. ¶Built-up leather heel, $1\frac{1}{8}$ inches high. One of the best and broadest heels of the lot. Counter flexible. Toe height satisfactory. Toe lining too flimsy and would come loose quickly. Elastic in front of shoe poorly sewn. Lining and innersole showed tendency to wrinkle easily. Sole soft and flexible but too soft for walking on hard pavements. Among the best in the water penetration test except for heel, which was affected.



Gold Cross, Lady Nettleton, Matrix, Selby Styl-EEZ

Very satisfactory performance in other wetting test.

Carefree Casuals Flexible (Sears, Roebuck & Co., Chicago; Cat. No. 5-8093) \$3.69 plus postage. Modified moccasin-type step-in pump. Tan. See comment under *British Walkers* on fitting by mail. Composition covered wooden heel, $1\frac{1}{2}$ inches high, one of the best and broadest in the group. Counter soft and had tendency to break easily. Toe lining flimsy. Elastic in front very poorly sewn to leather. Sole stiff and had tendency to break when bent sharply behind ball of foot. Performance good in water penetration test. Very good in other wetting test.

Enna Jettick (Dunn & McCarthy, Inc., Auburn, N. Y.) \$6.50. "Avon," Style 4253. Labeled "Hand-flexed by Master Craftsmen, Cushion Heel." Ghillie. Brown. Built-up leather heel, $1\frac{1}{8}$ inches high, narrowest and one of the poorest shaped in the lot. Heel lining lumpy and wrinkled. Seams rough. Toes well shaped, one of the best for the average foot. "Cushion" heel consisted of a small pad of paper felt which covered very rough nails underneath. Had thick composition soles, quite flexible. Poorer than average performance in water penetration test. Very good performance in other wetting test.

Foot Saver (Julian & Kokenge Co., 66 W. Main Street, Columbus, Ohio) \$9.95. "Skuffies." Labeled "Short-back last." Oxford. Tan. Composition covered wooden heel, $1\frac{1}{4}$ inches high. Shape of shoe narrow at ankle. Toe one of the best

in shape (box), well lined and smooth. Tongue fastening inside felt irregular and lumpy. Heel pad too high where it joins shank. One section of the front was incompletely stitched down to vamp indicating poor inspection at factory. Among the less satisfactory of the shoes from the standpoint of water penetration. Slight puckering in other wetting test and some, but barely noticeable, loss of color to wet cleansing tissue.

Gold Cross (Formerly "Red Cross," The United States Shoe Corp., Cincinnati) \$6.95. "The Prado." Pump. Tan. Composition covered wooden heel, 2 inches high. Counter strong but not resilient. Toe lining had a slight tendency to wrinkle. Had triangular throat that would be apt to give trouble from pressure on top of the foot. Bump in middle of the heel pad. Among the best in the water penetration test. Performance satisfactory in other wetting test, except for rather bad staining.

Lady Nettleton (A. E. Nettleton Co., Syracuse) \$9.95. Strap "Monk Oxford." Tan. Built-up leather heel, $1\frac{3}{4}$ inches high. Counter had tendency to break and get lumpy. Seams roughly finished. Shoe had a tendency to break behind the ball of the foot and enhance the possibility of the wearer's turning an ankle. Relatively very poor performance in water penetration test. Heel more affected by water penetration test than that of any other shoe in the test. In other wetting test, the upper of the shoe was badly puckered and distorted.

Matrix (E. P. Reed & Co., Rochester, N. Y.) \$10.95. Style 1591. Labeled "Your Footprints in Leather Created by Reed." Pump. Brown. Composition covered wooden heel, $2\frac{1}{8}$ inches high. Toe lining had tendency to wrinkle. Triangular throat apt to give trouble from pressure on the top of foot. Had small hard metatarsal pad. See comment under *Stetson* on scaphoid pad which applies to this type also. Bump in middle of heel pad. Among the



British Walkers, Carefree Casuals, Enna Jettick, and Foot Saver

best in the water penetration test. Average performance in other wetting test.

Vitality (International Shoe Co., St. Louis) \$6.95. Ghillie. Brown. Composition covered wooden heels,



Vitality

1¾ inches high. Counter too stiff, hence had a tendency to break. Heel too narrow at ankle. Toe lining harsh and wrinkled. Sole too thin and too flexible. Bump in center of heel pad. Among the best of the shoes tested in performance in water penetration test. Good performance in other wetting test.

Selby Styl-EEZ (The Selby Shoe Co., Portsmouth, Ohio) \$6.95. Swaggers, 222L459. Labeled "Flare-Fit Feature of Styl-EEZ Swaggers, a

Selby Shoe." Oxford. Tan. Built-up leather heels, 1¾ inches high, one of the broadest and best of the lot. Counter weak, had tendency to break instead of bending. Box toe. Lining smooth. Had a small, badly placed metatarsal pad. See comment under *Stetson* on scaphoid pad which applies to this type also. About average performance in water penetration test. In wetting test on the upper leather, upper was badly puckered and distorted.

* * *

In view of the increasing amount of interest in non-rationed play shoes, a pair with wooden soles was bought for examination. The sole was made of small strips of wood cemented to a wedge-shaped felt-like base. This is a type of construction that is too rigid to be recommended, although it might be tolerable in walking on grass or sand. It should never be worn when walking on hard pavement.



Kitty Kelly

Kitty Kelly (Kitty Kelly Shoe Stores, 34 St., N.Y.C.) \$3.15. Style 8150. Natural and brown, cloth and wood. Strips of wood of sole merely cemented on. At heel, shoe was attached to foot by single strap and there would be a greater tendency than normal for formation of a callus at this point.



Reading from left to right: *O-Kap*, *Reseals*, *Fis-Kap*, *Red Head*, *Seal-Again*. The small block under each cap is a piece of modeling clay used to hold the cap in correct position for photographing.

AS ALL carbonated and malt beverages are now exceedingly difficult to purchase in small sizes due to economy required in use of metal crown caps, part of the contents is often wasted when not used up at once, if no means are at hand for tightly resealing the bottle. For preventing this waste, the householder who often uses such beverages should consider one or more of the resealing caps which are now available in a wide variety.

Unfortunately, not all such caps are satisfactory. Some do not effectively seal the bottle against the loss of gas, and the contents eventually lose their "pep," become flat, and are then thrown away. The use

Bottle Closures

of an effective cap is well worth while, for not only will it eliminate waste, but money can be saved by virtue of the fact that the beverages cost less per pint in the larger sizes.

Consumers' Research has made tests of several of these caps, purchased in hardware and dime stores, but only one manufacturer's product was found to be satisfactory,

A. Recommended

O-Kap (Meco, Inc., Milwaukee) 10c. Worked on a toggle-lever principle, something like that used on the old-fashioned "pop" bottles before the days of the metal crown caps. Used a sound sealing principle that gave effective sealing under pressure.

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B. Intermediate

Reseals (Crown Cork Specialty Corp., Decatur, Ill.) 4 for 10c. Some samples found not to give a good and lasting seal in sealing a carbonated beverage. However, in view of their low price they may be considered as resealing caps for bottles of grape juice, catsup, vinegar, or other liquids in bottles having a crown-cap top, and in which little or no pressure is generated.

C. Not Recommended

Fis-Kap (Meco, Inc.) 25c. Similar to *O-Kap*, but in addition was equipped with a small spout and valve which permitted a portion of the contents to be ejected in the manner of a soda-water siphon, without need to remove cap. Satisfactory as a cap, but valve-spout arrangement does not work out very well in practical use.

Red Head (Manufacturer unknown) 5c. **Seal-Again** (Seal-Again Bottle Stopper Co., 155 E. 44 St., N. Y. C.) 10c.





Wartime Ice Boxes

THOSE who have been accustomed to the convenience of an electric refrigerator may find it hard to go back to the ice box when their present refrigerator fails and cannot be replaced or repaired until after the war. Many consumers, of course, particularly those in the rural districts, may find it difficult to keep an old-fashioned ice box going anyhow, unless their local rationing boards allow extra gasoline for transportation of ice, or unless the Office of Defense Transportation gives up its present practice of suddenly cutting off some vitally essential type of truck transportation. We hope that the War Production Board in limiting the manufacture of electric refrigerators but permitting the manufacture of ice boxes took fully into consideration that this backward step from electric refrigeration to ice boxes would necessarily involve a sizable increase in consumers' use of gasoline and tires; if we assume it did, it seems that the rubber and gasoline situations are in some quarters thought less critical than the steady flow of government press releases on the topic has indicated.

Some twenty-six manufacturers are being permitted to make a total of 150,000 ice boxes for the first quarter of 1943 and 210,000 for the second quarter. These boxes are made in two sizes only, one of about 50-lb. ice capacity with $3\frac{1}{2}$ cu. ft. of food space and the other of about 75-lb. ice capacity with 5 cu. ft. of storage space. The amount of iron or steel used in these boxes has been limited to 6 lb. (pre-war boxes used about 100 to 160 lb.). The new boxes

are made mostly of wood, pressed-wood boards having been used to replace most of the sheet metal; wooden or pressboard shelves are used in place of wire shelves. The WPB announced that ice boxes made under their wartime program would not be of as high quality as in normal times, but that it was expected that such boxes would provide a serviceable and durable product. The statement "as high quality as in normal times" might be misleading to many, for ice boxes have never amounted to much in respect to their refrigerating qualities. (In fact, ice refrigerators were so very poor that in 1938 CR mentioned in a BULLETIN that it did not expect to test ice-boxes further until there was distinct evidence that their design had been definitely improved.)

In spite of the obvious dis-

advantage of ice boxes, trade papers report there has been a big demand, since new electric refrigerators are unobtainable, and the supply of used ones almost exhausted, while there has been extreme difficulty in getting repairs on existing electric refrigerators due to the scarcity of repairmen and shortage of parts.

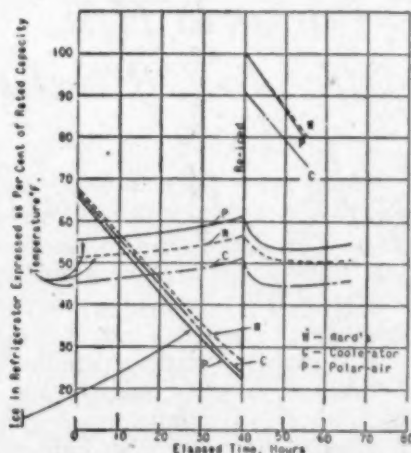
Selection of Models for Test

The number of refrigerators allotted to the manufacturers for production during a three-month period ranged from 1100 to 33,000. The products of the five manufacturers permitted to produce the largest quantities were therefore selected for test. Of these five manufacturers, one stated he would be unable to make deliveries for several months as his entire output was being taken by the government for defense housing; another could not make deliveries for several weeks due to inability to obtain materials.

The Coolerator Company, the largest manufacturer, furnished rather detailed and complete test data on their product with a duly notarized statement that the tests were made on a model taken from their regular assembly line and not built or equipped in any way for testing purposes.

Results of Tests

To preserve various foods properly, the temperature in the food compartment of a refrigerator should not significantly exceed 45°F. Of the three refrigerators tested or on which test data were available, only the Coolerator came near to maintaining such a temperature. (Coolerator gave slightly



Ice meltage and food compartment temperatures of three refrigerators. The slope of the ice curves give the meltage rate, which is not very different for the three refrigerators. Each of the three temperature curves records average temperatures within the food compartment, as the quantity of ice remaining in the refrigerator changes. Note that when the amount of ice is low, temperatures become much too high for safe food-storage, even in the best ice refrigerator.

better performance than a model of the same make tested by CR in 1936.) On the basis of the food compartment temperature limit mentioned, the other refrigerators tested, Sears-Roebuck's and Montgomery Ward's, would definitely be unsatisfactory for use at normally high summer temperatures, though the Montgomery Ward refrigerator might do in a cool climate where mean daily temperatures do not often go above about 75°F.

B. Intermediate

Coolerator V-6 (The Coolerator Co., Duluth, Minn.) \$69.95 to \$79.95, depending on particular territory. 5.1 cu. ft. Shelf area, including floor, 10.5 sq. ft. 75-lb. ice capacity. Fiberglass or rock-wool insulation. 2½" thick except sides, which were 2". Body and interior lining, *Masonite Presdwood* (a hard artificial

board). Single-outside-door type with separate inside door on ice compartment. Average food compartment temperature, with an 85.6°F room temperature, 47°F. Average daily ice meltage at 85.6°F, 19.6 lb., satisfactory. Would need re-icing about every 2 to 2½ days at room temperature of 85°F. (One large department store misleadingly advertised this box as requiring re-icing only twice a week [every 3½ days] under average conditions and asserted that as little as 15 lb. of ice provided constant cold.) The performance of this box, we believe, is probably as good as will be obtained from any ice box on today's market.

C. Not Recommended

Wards (Montgomery Ward, Cat. No. 266—3917, at \$44.60 plus freight, also sold by large department stores at \$56; manufactured by Ice Cooling Appliance Corp., Morrison, Ill.) 3.6 cu. ft. Shelf area, including floor, 9 sq. ft. Ice capacity, 75 lb. Single-outside-door type with separate inside door on ice compartment. Fiber-

glass insulation 2 inches thick. Body and interior lining, *Masonite Presdwood*. Shelves of hardwood. Average food compartment temperature, with an 85°F room temperature, 52°F, too high for efficient preservation of foods. Average daily ice meltage, at 85°F, 21.5 lb. (too high for size of box).

Polar Air (Distributed by Sears, Roebuck, Cat. No. 1—2947; believed to be manufactured by Sanitary Refrigerator Co., Fond du Lac, Wis.) \$49.95 plus freight, including 5-piece glassware set. 4.8 cu. ft. Shelf area including floor, 10.4 sq. ft. Ice capacity, 75 lb. Two-door type. Insulation two ½-inch wood fiberboards and 1-inch blanket of rock-wool type. Body and interior lining of composition board, shelves of composition board reinforced with thin strips of channel iron. Average food compartment temperature, with an 85°F room temperature, 56°F, much too high for satisfactory food preservation. Average daily ice meltage at 85°F, 22.4 lb. (too high for size of box).

Panama Hats Special Offer to CR Subscribers

FOR several years, J. R. Solano, a Consumers' Research subscriber has generously made arrangements to purchase in Panama Panama hats for any CR subscribers who desired them. Due to war conditions, such hats, though obtainable, are not as plentiful as before, and prices have gone up. Mr. Solano, however, has advised us that he will still endeavor to secure hats for CR subscribers who require them, providing they will adhere in all details to the following simple requirements:

1. Send *Post Office money order* for the amount you wish to spend for the hat, plus a service charge of \$1 for the first hat and 50 cents for each additional hat in the same shipment; the money order

is to be made payable to **J. R. Solano, Box 694, Balboa, Panama, Canal Zone.** (Checks or bank drafts are not acceptable.) Mail time is about one month each way.

2. Specify on order: whether *for man or woman*, *American size* of finished hat usually worn, approximate *width of brim* desired. Information as to height and weight of the person for whom the hat is intended is also desirable.

3. Hats will be sent to purchasers by insured parcel post, regular boat mail, and at purchaser's risk; customs duties paid by recipient. The hats will be sent in soft condition, rolled, and hence will require blocking and banding on arrival, by a good

workman who knows how to handle Panama hats.

Note: As hat-market conditions are changeable and at times uncertain, it is impossible to guarantee widths or fit, and it must be understood that the subscriber purchasing hats in this way is not to return them. Mr. Solano gives assurance, however, that he will do his best to obtain the best hats procurable at the time for the money enclosed.

This announcement is not to be taken as a solicitation of business by J. R. Solano or by Consumers' Research for him. It is merely a service that has been much appreciated by our subscribers in past years that we are glad to mention again for their benefit.

Playing in Your Own Back Yard

THOSE who live in the country or the suburbs undoubtedly realize that home is often the most satisfactory place to spend a week end or a vacation these days. Transportation facilities are overcrowded, meals are of uncertain quality and quantity—rationing problems follow one even on vacation—and hotel and boarding house accommodations are often difficult to obtain.

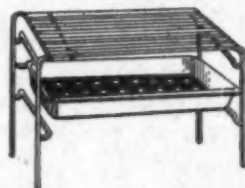
The back-yard boom started last year. Barbeque grills, lawn umbrellas, porch swings, and croquet sets and other games were in great demand. Even city dwellers were reported to be setting up outdoor grills in the back yards, on terraces, and, according to one story, even on an apartment house fire escape.

Since production on metal furniture and other metal items was stopped last year by government orders, such stocks as are available come from warehouses and retailers' stockrooms. There are grills and other back-yard equipment still to be had by the watchful shopper. Mostly, however, they are in the higher price brackets and the best-designed items are not generally available. The *Hi-Low Charcoal Camp Stove*, for example, which is one of the most economical and simplest to operate with charcoal could not be located in well-known sporting goods stores in Chicago, Boston, and New York City.

Grills

A more elementary type of grill, however, without the tray for the charcoal was purchased from both the A & N Supply Co., Richmond, Va., at

45 cents, and from David T. Abercrombie Co., 311 B'way, N.Y.C., at 60 cents. Such a simple, folding-leg grill is widely available in hardware and sporting goods stores. It has 4 sharpened steel-rod legs (which fold flat against the grate itself). These are 11 inches long. The grate or grill surface is $10\frac{1}{2} \times 16\frac{1}{2}$ inches, and the grid wires are well spaced for the purpose. This appliance is somewhat more expensive than grids of the same general type often found in 5-10-25-cent stores, but is judged to be well worth the difference for most users. It will do very well for a picnic meal and is best used by surrounding it with loose bricks or stones to



Hi-Low Charcoal Camp Stove

confine the heat and direct the flames (and reduce the fire-hazard in the woods).

A folding grill intended for use with charcoal (Montgomery Ward's No. 486—7494, marked with the name *Picnic-Chef*) was attractively painted with aluminum, with a hinged, corrugated sheet-metal shelf of satisfactory thickness for supporting the fire, sold at \$2.39 plus postage. It has a grid 10×15 inches of straight parallel wires on which to support the steak or pans; the wires are spaced about $\frac{3}{4}$ inch apart, spot-welded to cross wires at each end.

Montgomery Ward's *Eclipse*, Cat. No. 486—7493 at \$3.69 plus postage, is somewhat sim-

ilar to the *Picnic Chef* but seems a much better design and should be more convenient to set up and give longer life in service. It has about a 50% larger fuel capacity and a tray to catch the ashes. Grilling surface is about 8×17 inches. (A cheap pair of cotton gloves, and a two-pronged fork of wire, 14 inches long, good enough for light use, were "thrown in" with both the grills described.)

Such folding grills, while they have the disadvantage of somewhat small size, have an advantage of greatly decreasing fire hazard in woodland. Although the shape and construction of these grills make them especially adapted for use with charcoal, they should be entirely practical for use with wood of the proper sort in small sizes, judiciously fed.

Small folding grills of this general type should always be taken in out of the weather after use in order to extend their life.

Camp Ax

Another important item of camping supplies recently examined is the Collins Camp Axe (Collins Company, Collinsville, Conn.). It is a convenient small hand ax useful for the camper and picknicker with a 13-inch handle (measured from end to end) and $3\frac{1}{4}$ -inch bit. This little ax (purchased from A & N Supply Co., Richmond, Va., at \$1.25 plus postage) is well finished and hardened. The blade has a nail-pulling slot on one side, which is a convenience. Incidentally, such a small ax is a good tool to have in your car, preferably mounted on a bracket or in a clamp or holder of some kind;

or, if not, laid on the floor where it can be reached instantly in an emergency calling for a weapon, a tool for chopping wood—or a means of hacking your way out of the car in case of accident or sudden submersion.

Cooking Utensils

The type of utensil and accessories selected depend to a considerable extent on the menu to be prepared. With meat not only rationed but in short supply in many areas it appears doubtful that the grills for cooking steaks and hamburgers, and the long forks for roasting hot dogs will be so widely used as hitherto.

If fish chowders, stewed chicken, rabbit or other game are to constitute the main dish, a heavy iron kettle or Dutch oven will best serve as the proper cooking utensil. Not only the meat or fish but the vegetables as well may all be prepared in the one kettle. Pancakes—if the family will eat them with syrup or jam instead of butter—may serve as dessert. All these are lots of fun to cook outdoors. If there are any who do not have an iron pot tucked away in the attic or basement, such old-fashioned utensils, we are glad to say, are still to be found in some large department and other stores. Of course, as the mother of any Boy Scout knows, a good meal for a hungry group *can* be cooked in any old pan. The pot-washing problem, suggests a Cornell pamphlet, may be simplified if the kettle is thoroughly soaped on the outside with yellow laundry soap before putting it on the fire.

Lawn and Porch Furniture

The selection of lawn furniture available is rather hit-and-

miss this year, and the quality is on the whole poor. The Adirondack-type wooden chairs and benches examined were for the most part of such poor quality that they were not even purchased for test. Lumber was as a rule of low-grade soft wood or scrap lumber.

The man who likes to do woodworking in spare time will have a much better set of lawn furniture if he purchases one of the knock-down ready-cut sets of which the design suits his taste and makes his own to the same general pattern out of some more substantial and durable wood such as redwood, dense Douglas fir, Southern cypress, white oak, Western larch, or Southern pine. Wood used in any case should be all heartwood. Douglas fir, Western larch, and Southern pine will exude resin, especially when exposed to the hot sun, and this, of course, can be a serious disadvantage. While a little more expensive, use of the extra-durable woods, such as redwood and cypress, will pay well in the making of lawn furniture, possibly double or treble its useful life. Redwood will need particular care in the rounding and sanding of edges, since it has a more "splintery" characteristic than other common woods. It has been CR's observation in buying and making lawn chairs that a more durable design is found in chairs which have seat boards running from side to side than those—which are most common this year—in which the seat boards run from front to back.

Gliders and porch settees have pretty much disappeared from the stores because of their steel construction, but old-fashioned hammocks can still be purchased. Both Montgomery

Ward and Sears Roebuck list them in their current catalogs.

A well-made cotton hammock made by Algoma Net Company (Algoma, Wis.) is sold by Montgomery Ward at \$6.85 plus postage. This hammock has a curved wooden stretcher, and measures about 40 x 74 inches. Fairly serious weaving defects and a smear of blue paint that should not have passed the inspector were found. Heavy steel hangers for attaching to a hook or rope for supporting the hammock from trees or posts were also attached. The weight of this hammock was about 5¾ lb.

Another hammock made by the same company, also with curved stretcher, measures about 36 x 76 inches and weighs 4½ lb. This is sold by Sears Roebuck at \$3.69 plus postage.

Sears-Roebuck's Adirondack-type wooden lawn chair (Cat. No. 1-01106, \$2.25 plus postage) comes knocked down, with instructions for assembling which seemed to be not too easy to follow. (Nails were not furnished, and nails are often hard to get now.)

The chair is of a satisfactory shape, even has edges and legs rounded to avoid tearing stockings although arms and legs are not entirely free from splinters in some parts. The back is made of 5 thin slats, to which no objection need to be taken except from the standpoint of durability under weather conditions.

Weather is hard on the Adirondack-type chairs in any case, and outdoor exposure would mean pretty short life for any thin wood, particularly on account of the rotting that would take place around the nail holes. However, thinness of the seat boards is seriously objectionable, and the seat of

this chair was made of 6 thin (5/16 inch) slats, which were not sufficiently thick to provide against breakage by a person of moderate weight; one slat, which was cross-grained, broke under the weight of a small person weighing around 100 pounds. Even without the cross-grain defect, this chair would have been hopelessly weak, since there would be little factor of safety for a fairly heavy person, and none at all after a period of weather exposure. Probably to furnish reasonable strength and weather-resistance, seat boards in such a chair should not be less than 1/2 inch to 5/8 inch thick. In other respects, too, the chair was somewhat fragile, and should not be counted on for several seasons' use, especially in a family with large adults or active children.

Outdoor Games—Archery sets, croquet sets, darts, and sources of other items

Games such as croquet, darts, and archery are still to be had. Judging from the number of Victory gardens that are being planted, there will be fewer

people this year than usual who will have energy left for games if their gardens are kept well weeded and cultivated and their various war-time duties fulfilled. For the benefit of the youngsters and the many older folks who will still have time and opportunity to play, we are listing here various sources which sell by mail and from which games have been recently available. It did not prove practicable to purchase any number of nationally-distributed brands or comparable items for test.

Following the list of suppliers of game material, there are given a number of sources of other items.

Dave Cook Sporting Goods Co., 1601 Larimer St., Denver, Colo.
Sears, Roebuck & Co., Chicago, Ill., and various Sears-Roebuck retail stores.
Triangle Archery Co., Harrison and State Sts., Chicago, Ill.
Von Lengerke & Antoine, 9 N. Wabash Ave., Chicago, Ill.
Montgomery Ward, Baltimore, Md., and various Montgomery Ward retail stores.
Iver Johnson Sporting Goods Co., 155-57 Washington St., Boston, Mass.
A. G. Spalding & Bros., 518 Fifth Ave., New York City.

Abercrombie & Fitch, Madison Ave. and 45, New York City.

L. E. Stemmler (Archery only), Queens Village, L. I., N. Y.

Horace Partridge, 1207 Walnut St., Philadelphia, Pa.

Rustic Furniture—limited supply

Michigan Roadside Table Co., Pontiac, Mich.

Rustic Furniture Co., Inc., Black Horse Pike at Railroad, Williamstown, N.J.

Brook Iron Works, Inc. (Habitant—wooden—rustic furniture), 99 Church St., New York City.

Camping Supplies—tents, etc.

L. L. Bean, Inc., Freeport, Maine.

A and N Supply Co., Richmond, Va.

Books and Pamphlets on Building Outdoor Fireplaces

Camp Stoves and Fireplaces, by A. D. Taylor. 1937. U.S. Government Printing Office. \$1.50, from Superintendent of Documents, Washington, D.C. Excellent diagrams and directions for building crude fireplaces for the passing camper, or the more pretentious multiple-unit camp stoves.

Little Book of Outdoor Fireplaces—Better Homes and Gardens Booklet No. B-J-2. 1940. 6c (individual plans, 25c), from Better Homes and Gardens Home Service Bureau, Des Moines, Iowa. The designs seem a bit on the elaborate side.

"Go Camping at Home," by George W. Martin. Outdoors. June 1943. 15c, from Outdoor Publications Inc., 729 Boylston St., Boston, Mass.

Man's Suit Tested

BY ARRANGEMENT with Ripley Clothes, Inc., a fully competent, independent commercial testing laboratory carried out a test of a suit of Ripley make, following methods which were specified by Consumers' Research in correspondence.

A representative of the laboratory purchased the suit in the firm's retail store with-

out identifying himself or revealing his purpose in buying. The entire cost for the test was borne by the manufacturer.

All the technical details and findings of this test were reported in detail by the laboratory directly to Consumers' Research.

The rating is cr43.

Consumers' Research Bulletin

A. Recommended

Ripley, Lot Number 25192 (60 Broadway, Brooklyn, N.Y.) \$26.95 plus sales tax. Fabric woven of good quality worsted, two-ply warp and filling yarns. Weight 15.4 oz. per running yard of 54 inch width. Breaking strength of suiting: warp, 89 lbs., filling, 70 lbs. Coat lining of good quality Viscose rayon, having breaking strengths of: 106 lbs. (warp) and 64 lbs. (filling). Colorfastness to sunlight was found satisfactory. Pocketing materials, fit, tailoring and construction judged good.

Storing Fruits, Vegetables, and Meat in a Freezer-Locker

By B. W. GARDNER, JR., UNIVERSITY OF ILLINOIS

FRESH FRUITS AND VEGETABLES stored by freezing retain their original fresh flavor and nearly all of the nutritive qualities of the fresh product. Processing them for freezing and storage is as easy as canning, perhaps easier. There are six important rules that must be followed, however, to ensure maximum satisfaction from this method of storing food.

First, foods *must be fresh*, if you expect a quality frozen product. Do not buy vegetables which have stood for several hours in a market and become slightly wilted. For best results, they should be picked from the garden, preferably in the early morning. They should then be blanched, packed, sealed, and frozen as quickly as possible after picking. Fruits too should be processed and stored as soon after picking as possible.

Second, remember that the garden or orchard produce that is to be frozen *must be of good quality and in good condition*. It is vitally important always to use fresh, unspoiled, tender, ripe produce. Tough, over-ripe, or spoiled garden or orchard produce will always make an undesirable frozen product. It will be even more undesirable when it is thawed out than it was originally. In preparing fruit and vegetables for freezing, they should be washed, sorted, and any undesirable portions discarded, so that the food will be ready to eat when it comes from the cold storage unit.

Rule three is that all *fruits and vegetables should be packed*

in moisture-proof airtight containers. There are a number of paper cartons on the market that meet these requirements and these work out much better than glass or tin containers. Containers should be of heavily waxed material, and so constructed that they are tight, for tightness is essential to retard to the maximum possible degree the evaporation of moisture. A cellophane lining or a cellophane bag to slip inside the carton is desirable, although possibly not always available for ultimate consumers' use at this time. The containers best adapted for home use are the pint and quart sizes. Since efficient use of space and quick-freezing efficiency are important, containers of a rectangular shape are desirable; however, they are not nearly so effective against loss of moisture from the food as cylindrical containers. A considerably larger number of rectangular cartons than cylindrical ones of a given volume can be stored in a given space. The actual proportion varies greatly with the size of the particular cartons chosen for comparison, but may be 50 percent or more.

Among container materials which have been tested and found satisfactory by the New York State Agricultural Experiment Station at Geneva are the following (some of these will be obtainable from dealers in food-locker-plant and freezer-storage-unit supplies, or from food-locker plants themselves):

No. 300 MAT Cellophane, No. 300 Sp MST Cellophane, No. 450 Sp MST Cellophane (E. I. du Pont de

Nemours & Co., Inc., Wilmington, Del.) (H. D. Catty Corp., 237 Main St., Norwalk, Conn., distributes du Pont cellophane for home freezer units and locker plants.)

100 x Tensilite Pliofilm (Goodyear Rubber Co., Akron, Ohio)

Special Coated P 3 Parchment (Paterson Parchment Paper Co., Bristol, Pa.)

Cry-O-Vac Latex (Dewey & Almy Chemical Co., Cambridge, Mass.)

40-lb. Heat Sealing Vegetable Parchment, 35-lb. Heat Sealing Ivory Durapak, Diafane, Laminated Diafane. (Write to Riegel Paper Corp., 342 Madison Ave., New York City, for information on local jobber or bag manufacturer handling these materials.)

No. 300 STD Sylphrap, No. 300 BU Heat Sealing Sylphrap, No. 300 WP Sylphrap (Sylvania Industrial Corp., 122 E. 42, New York City)

The fourth rule is *quick freezing*. The freezing should take place as soon as possible after the produce is prepared and packed in the cartons. It must be conducted at a temperature of -20°F . *Speed in freezing is essential* to reduce the injury to the structure of the fruit or vegetable due to cell rupture, so that the frozen product when thawed will remain plump and firm as it was before freezing. Slow freezing makes a product which becomes soft and mushy upon thawing.

Rule five relates to the selection of the proper varieties of fruits and vegetables for freezing and storing. Some vegetables such as tomatoes and cucumbers are so bulky and succulent (permeated with watery juices) that they are not practical to freeze and store. Certain fruits lose their color and flavor, and may even break down entirely. Table I gives

some varieties of vegetables that are adaptable to freezing. Table II (on page 16) lists the fruits that can be used.

The sixth rule applies to specific ways to handle fruits and vegetables. Fruits should nearly always be packed in a syrup. Some fruits, such as raspberries, may be packed dry. However, when packed in this manner they do not retain their flavor as well. Raspberries may also be packed with sugar or with a thin syrup. The skin and stones are removed from peaches, which may be left in halves or sliced, and covered with a thin syrup. Cherries are pitted and stored with a thin syrup. Strawberries may be packed crushed or whole. A thin syrup is usually used. A thin syrup is made by using 1 cup sugar and $1\frac{1}{4}$ cups water; a thick syrup uses 1 cup sugar and $\frac{1}{2}$ cup water. As soon as all the cartons are full they should be quick-frozen.

All vegetables must be blanched, i.e., placed in a wire basket and dropped in *boiling* water for a specified length of time (depending on the vegetable), then cooled in cold water. After vegetables are blanched they should be thoroughly drained, packed quickly, and frozen immediately. It is most important that all packages should be labeled with the date and their contents.

For more detailed information concerning the proper technique of handling fruits and vegetables for freezing, the consumer should write the Department of Horticulture or Department of Home Economics in his State Agricultural College, or write for one of the publications listed at the close of this article.

Table I—Varieties of Vegetables Rated with Respect to Their Adaptability to Satisfactory Freezing-Storage.

Vegetable	Rank			
	Very Good	Good	Fair	Poor
Sweet Corn	Golden Cross Bantam	Narrow Grain Evergreen Whipple's Early Yellow Golden West Country Gentleman Kingscrot M13	Howling Mob	
Peas	Little Marvel	Thomas Laxton Dark Pod Laxtonian Alderman T. Laxton Early Alaska	Asgrow No. 40 Morse Market	
Snap Beans (also known as String Beans)	Burpee Stringless Greenpod	Improved Stringless Greenpod Pencil Pod Black Wax Kentucky Wonder (when 6 to 8 inches long) Bountiful Green Pod Stringless Plentiful		
Lima Beans	Illinois Large Podded	Full Measure Henderson's Bush Baby Potato Green Prolific Jackson Wonder		
Asparagus		Mary Washington		
Beets		Detroit Dark Red	Early Wonder	
Spinach	Blight Resistant Savoy King of Denmark Victoria Bloomsdale Long Standing			New Zealand
Tomatoes				No variety will freeze satisfactorily
Cucumbers				No variety will freeze satisfactorily
Watermelon				No variety will freeze satisfactorily
Rhubarb		Ruby New Zealand MacDonald		

Table II—Varieties of **Fruits** Rated with Respect to Their Adaptability to Satisfactory Freezing-Storage.

Fruit	Rank			
	Very Good	Good	Fair	Poor
Blackberries	Boysen Logan Young	Alfred Brainerd Eldorado		
Youngberry Boysenberry			Both are soft but fair for freezing	
Gooseberries		Poorman Houghton Glendale		
Purple Rasp- berries	Sodus	Columbian		
Red Rasp- berries		Chief Latham Cuthbert		
Black Rasp- berries		Black Pearl	Bristol, Cumberland (seedy)	
Strawberries	Chesapeake	Catskill Dorsett Pathfinder Redheart Progressive Howard Su- preme	Blakemore Fairfax Premier Dunlap	Aberdeen Aroma
Peaches		Gage Alberta		
Sweet Cherries		Bing		
Sour Cherries		Montmorency Early Rich- mond English Morello		

Freezer-Storage of Meats

The preparation of meat for freezing and storage is not so simple an operation for the consumer to perform as that of preparing fruits and vegetables. The urban consumer is not equipped and usually does not have enough general knowledge of the subject to perform any of the operations. He is wise, therefore, to let a commercial freezer-locker operator or butcher perform this service.

The rural consumer quite often has the equipment and experience that will enable him to slaughter and dress his own meat supply. It is, however, usually better for him to let professional butchers cut and

wrap the meat because they have the equipment and can perform the operation with much greater skill, so that he will have a much more desirable product to store in the locker.

Freezer-locker plants usually charge from \$1.50 to \$2.50 for slaughtering. Chilling, cutting, wrapping, sharp-freezing and storing is priced at 3 cents to 3.5 cents per pound. A charge of 1.5 cents per pound is made as a commission charge when the locker patron has the freezer-locker operator purchase the meat from a packing house for him. For more detailed information concerning the slaughtering, dressing, and

cutting up of meat animals the consumer is referred to the Farmers' Bulletins 1415, 1168, and 1172 listed at the close of the article.

Poultry may be satisfactorily frozen and stored. Only healthy and "well-finished" birds should be used. They should be well bled and the feathers removed by the dry picking method or by the slack scald method (water 120°F to 130°F). The birds are drawn and rinsed first in water at room temperature to remove blood, then thoroughly washed in cold water. Birds that are not well-bled or scalded in too hot water will discolor badly after freezing. Birds that are to be used for frying are disjointed in the usual manner. Broilers may be cut in half and each half wrapped separately. Roasters are wrapped whole after they have been drawn and trussed.

All meat and poultry products that are to be frozen for storage should be wrapped with moisture-vapor-proof paper. Ordinary wax paper of the type now widely purchased for household use will not serve, but there are a number of special wax papers on the market which have been tested and found satisfactory for the purpose. The corners must be tucked in tight and the piece of meat or poultry should be *double-wrapped*. Cellophane sheets or cellophane bags are also satisfactory materials to use. Meat and poultry packages, too, should be labeled with the date and contents. If the meat is stored in a freezer-locker the patron's name should also be on the package.

Because of the apparent meat shortage during the war emergency, it would seem impracticable for the urban consumer to try to store meat in a freezer-

locker or home freezer-storage unit. At the time of this writing the rural consumer may slaughter the same amount of meat he produced and slaughtered in the same quarter during 1941. He should utilize this opportunity because it will not only assure him a supply of meat but it will help to solve the food-supply question in general by relieving some of the pressure on the shipping situation. It will also make more commercially slaughtered meat available to care for the meat ration requirements of the city-dwelling consumer.

Savings Made

An intensive study of the savings made by storing meat in a freezer-locker does not show a saving per pound that is very significant. The saving on beef will be from 3 to 5 cents per pound, on pork about 5 cents per pound. On lamb, the saving would be somewhat less. The savings, of course, will vary somewhat, being dependent upon prices in the community in which the consumer lives. However, apart from the matter of direct economic savings, there are important factors to be considered in storing frozen meat. The consumer is assured a quality product when he wants it. He is also assured of having the meat and being able to have the cut of meat he wants, on the day when it is needed. When the consumer of a moderate income level stores frozen meat; his meat menu will contain more of the higher-priced cuts of meat than it would if the ordinary purchasing procedure were followed. The higher-priced cuts taken from freezer storage will cost him no more than do the cuts of meat that are considered the economical cuts of meat in the retail meat market. The avail-

ability of fresh beef and lamb as well as pork in the freezer-locker or home freezer-storage unit will also help to add variety to the diet.

Changes in Freezing Process

Frozen meat is changed very, very little by the process of freezing. In some instances it may be made more tender. Pork that is stored over four months may acquire a slightly rancid taste. The nutritive value of meat is not impaired by freezing. The meat may be cooked in the frozen state or after it has thawed. If the cooking process is started while the meat is still frozen, a little more time must be allowed for cooking, and broiling temperatures may need to be a little lower so that the outside layers are not burned when the interior is just getting done. Studies by experts have shown that there is no difference in palatability in either method of cooking.

More detailed information on freezing and storing of meat may be obtained by writing to the Animal Husbandry or Home Economics Departments of your State Agricultural College or by writing for some of the publications listed at the close of the article.

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Farmers' Bulletin 1415; Pork on the Farm, Killing, Curing and Canning—Farmers' Bulletin 1168; Farm Slaugh-

ter and Use of Lamb and Mutton—Farmers' Bulletin 1172. Quick-Frozen Foods—Pamphlet, by

C. Roy Mundee and Frances C. Porcher. 1938. 10c, from U.S. Department of Commerce, Washington, D.C.

Glass Plates to the Photo-Amateur's Rescue

THE PRESENT ACUTE SHORTAGE of cut film has been most discouraging to those amateur photographers who have been accustomed to use this type of convenient and relatively inexpensive negative material. But the owners of *Graphic* or *Graflex*, or Continental-type cameras (*Eastman Reconar*, *Zeiss Maximar* or *Ideal*, *Voigtlander Avus* or *Bergheil* and the like) will usually have plate holders, and are therefore in a position to use glass plates instead of film. Some of the larger photographic stores can supply additional holders for these cameras when in the popular sizes, 6.5 x 9 and 9 x 12 cm. Plate holders for the *Speed Graphic* or *Graflex* and similar cameras may be hard to find, but it is often possible to find on the used-camera market at a low price either a Continental-type camera without lens but with plate holders, or one of the older American plate cameras with plate holders. In such cases, the lens and shutter from the new camera may be transferred to the older camera "for the duration."

Some of the present generation of amateurs may never have used plates, and may be reluctant to try them. But plates are no harder to use than are cut films, and the results obtained from their use are in no way inferior to those obtained from the use of films—indeed some unreconstructed old-timers will say that the film has yet to be made which can equal a plate of similar emul-

sion characteristics. Plates are much used in scientific photography, and for color-separation work they are considered superior to films, because there is no danger of misregistration, as might be the case if a film buckled in the holder. Plates are of course heavier than film, and are breakable, but no dyed-in-the-wool photographic amateur will permit such trifles to interfere with his hobby. On the other hand, emulsions coated on glass have better keeping qualities than do those coated on film base, so that if only "stale" goods are available, plates are definitely a better buy than is film.

An inquiry by CR indicates that plates, in amateur as well as in professional sizes, are still being produced by Eastman Kodak Co. (presumably also by Defender Photo Supply Co.), there being no Government restriction on their manufacture. Although dealers as a rule carry only a small stock, because of the relatively small demand, plates of practically any size (except 2½ x 3½ inch) and any desired emulsion char-

acteristic can be readily obtained in a reasonable time by having the dealer order them from the factory.

Most cut-film developing tanks are not adapted for use with plates; hence unless a suitable tank can be purchased either new or second hand, the plates will have to be developed by the tray method. In some ways, plates are preferable to film for this type of development.

In using plates, certain precautions should be observed which are less necessary when films are used. Plates have a greater tendency to "frill" than do films, and the temperature of the developer, fixer, and wash water should be more closely watched; about 65° is desirable. Many types of plates are backed with a material which contains a pigment; when using such plates, agitation during development is more than ever essential in order to prevent any particles of the pigment from settling on the face of the plate and causing white spots in the finished negative. In storing unexposed (or exposed but undeveloped) plates, it is important that the boxes be stood on edge, in order that there shall be no pressure marks caused by the weight of the plates.

Retail prices charged by dealers for glass plates are usually higher than for cut film (35 to 70%) but about 25% lower than for film-pack.



**BUY WAR BONDS
AND STAMPS**

Servicing the Radio at Home—II

IF THE TESTS so far made have failed to locate the trouble, and if all the tubes are in working order, look the set over for signs of damaged or burnt parts. Sometimes if certain defective circuit conditions exist, the power transformer may get very hot in a short period of running—may even smoke, or wax may run out of it or out of some of the condensers. If this occurs, shut the set off immediately because further running of it may cause more extensive damage. The same applies if the rectifier tube shows signs of becoming extremely hot (plates inside the tube turning red, or a strong blue haze in the tube). This usually indicates that a filter condenser has been burned out and the set should be turned off at once. (It will do no good to try to correct the trouble by putting in another rectifier tube, for the tube itself may be damaged if this is tried.) Resistors which have been overloaded are frequently charred or discolored or the enamel blistered, and when such a component is found, it may usually be assumed that an associated condenser has failed (become short-circuited). Its failure will have caused overloading of the circuit, and alteration of the value or breakdown of the resistor.

Testing Out Circuit Details

If the previous tests have failed to locate the trouble, it is necessary to test out the circuits in order, starting where the power enters the set through the appliance cord. If the appliance cord is in good condition, but the tubes fail to light, the trouble is usually a broken connection or burnt-out primary of the power transformer (if the set is one of the a-c [not

ac-dc] type). This is definitely established by disconnecting one wire and connecting the tester in series with the primary; if the neon lamp fails to light, or lights only faintly, the winding is burnt out. If the primary is found to be in good condition, the open circuit is either in the secondary winding or in the wiring between the transformer and the tube sock-

through a suitable resistor, which is often in the connecting cord. This type of set can usually be distinguished by the absence of a power transformer and by the fact that the cord connecting the set to the power socket gets hot after a time. (A power transformer can be distinguished as a rather large and bulky painted iron-cased unit with one of its

several sets of windings connected directly to the two wires of the cord that goes to the lamp socket or wall outlet.) Tracing trouble in the filament circuit of this type of circuit is, as a rule, not practicable for the amateur. The best that can be done will be to check over the connections to the tubes under the chassis to see that there are no broken wires, or joints that have come unsoldered.

The amateur should use the greatest care in any work on the very compact modern ac-dc portable battery sets. They are too compact to be safe for any non-expert handling, and even the expert has his troubles with them on account of the low-voltage tubes used and the way these tubes are connected. This caution applies also to any of the modern sets run from batteries. The whole string of tubes may be burned out by a single slip of the screwdriver, test prod or other tool, with resulting loss of tubes worth \$7 or thereabouts—and these are

times when getting tubes of any kind, particularly for sets of the most modern types, is difficult, sometimes even impossible.

Checking for Voltage on Tubes

The somewhat advanced experimenter may now test, if the trouble has not been located, to see whether the plates and screen-grids of all



Testing for the presence of a plate voltage on the tube prong of the first detector and converter tube. The neon lamp tester described in the article in the November 1942 Bulletin is used. That this is a direct current voltage is shown by the fact that only one of the semi-circular segments of the neon lamp in the foreground is lighted. If the voltage had been an a.c. one, such as is present in the input side of the power supply parts of the set (for example, the power transformer), it would have been indicated by lighting of both of the segments in the lamp.

ets. Using voltage from the power mains as a source, and connecting the tester in series, continuity tests are made of these circuits. (Using the neon-lamp tester in this way limits the current flowing into these circuits to a safe value of a few milliamperes.) In ac-dc sets, the filaments are connected directly to the power line in series

tubes are being supplied with voltage. This is done by connecting one terminal of the tester to the tube cathode connection and touching the other terminal in turn to plate and screen-grid connections (watch out—danger of shock if fingers contact a live wire or connection). Failure of the lamp to light means no voltage (or low voltage). In tubes without cathodes, the type 80 rectifier

condition can be the result of an open circuit or burned-out winding in an associated part, such as radio-frequency, intermediate-frequency or audio frequency transformer, a coupling resistor or choke, etc. It can also be caused by a short circuit in a by-pass condenser; to check on this, disconnect the by-pass condenser, and if voltage then appears at the tube terminal, the defective con-

denser is pretty sure to have been the cause of the trouble. (This method of test does not apply to every tube in all types of sets, but it does to the great majority.)

The tester may be used to detect the presence of a voltage across any circuit where a d-c-voltage in excess of about 65-70 exists, for example across filter or coupling condensers, dropping resistors, de-coupling resistors, load resistors, voltage dividers. If the lamp does not light, either the part being tested is short-circuited ("broken down") or, due to an open circuit or other fault, there is no current flowing in the part connected in series with it (or the voltage may be below 65 to 70 d.c. [50 to 55 a.c.]).

By making methodical voltage and continuity tests, the trouble may often be found. A common source of trouble in radio sets is in the electrolytic condensers, both the kind in elongated aluminum cans and those in paper cases, and in the other type of condensers having a paper dielectric, especially when such condensers are old or the set has been out of use for a long period.

A loud hum from the speaker strongly suggests deterioration of a filter condenser or open circuit in it or the circuit feeding it. With cheap ac-dc sets, the hum may sometimes be reduced by reversing the position of the power output plug so that the plug prong which was up before is on the bottom or floor side of the outlet.

Loose or Faulty Connections, Condensers, Etc.

Noisy or intermittent reception can come from any one or even quite a number of causes, and intermittent reception often presents the most serious difficulties to the trouble-shooter.

Assuming that the tubes have all been found to be in good condition and that the noise does not originate outside the set (a possibility eliminated by the first tests described), noisy or intermittent reception is usually due to a poor or corroded connection or to gradual deterioration of a condenser or resistor or a transformer winding. (But be sure that a possible outside cause has first been definitely eliminated.) With the set turned on and the volume control turned up, gently poke at various connections with a slender blunted wooden stick (not a pencil), and note whether a crackling or grinding noise is produced in the speaker. Such a noise associated with movement of a particular wire or part suggests a loose connection, or a wire broken inside its insulating covering. If any connections appear to be definitely loose or corroded at the solder joint, melt off the solder with a hot soldering iron, clean the wires and re-solder, using rosin flux. Be sure always to do soldering with an iron which has been well heated, so that the solder is fluid and runs easily; a cool iron makes unreliable joints. (An over-hot iron causes quick deterioration of the solder, and can also produce poor joints.)

One easily located source of noise is a worn volume control. If crackles or scraping noises are heard as the volume is raised or



View of top of the set showing at a and b tubes with grid caps. From the tube at a, the cap has been removed. If this should occur accidentally or the wire from the grid cap to the other circuit point involved is broken, the set would become inoperative.

The screwdrivers in the serviceman's hands are pointing at adjusting screws lying below holes in coil shields and top chassis-plate respectively. The person trying to service his own set must not turn these screws since they determine important adjustments affecting the tuning and sensitivity of the set. (Servicemen often find that set owners have turned these screws in the belief that they may thereby have a chance to correct some fault of reception.)

for example, the filament is used as the reference point in these tests. (Extra care! In many sets, dangerously high voltages are present in the rectifier circuits—sometimes as high as 700.) Check every tube of the set in this manner, but apply the neon tester only for a moment at any high-voltage test point. A no-voltage

lowered, the chances are that the resistance element within the volume control is in poor condition, and this may produce noise even when the volume setting is not being changed. A defect in the volume control is sometimes the cause of intermittent operation of the radio, producing erratic increases and decreases of loudness. The remedy is replacement of the volume control.

When any part is replaced, be sure that the soldered joints are made strong so that they will stand a good hard pull. One which is not so, is often not fully soldered, but only "stuck together," and will be a source of trouble later.

"Fading" and Distortion Troubles

Fading is another common trouble. This is distinguished from intermittent reception in that there may be a slow fading out of the music, followed by a correspondingly slow increase of power until normal volume is reached again. This annoying fault can be due to either of two types of causes, one in the set itself, and one in atmospheric conditions; but by far the majority of difficulties of this sort is entirely outside of the control of the set user, since it represents a peculiarity of transmission conditions that is characteristic of a certain period or season, and there has been a very unusual amount of this sort of trouble in the past year or two. Because of the peculiar and pronounced changes of loudness or tone sometimes heard (sometimes associated with a persistent or intermittent distortion which may be so bad as to make speech hardly intelligible), many people simply will not believe that this trouble is not a defect of their set, and they insist that a radio serviceman should do something to cure it. There is nothing whatever that he *can* do in most cases. It is easy to determine whether the trouble is local or "cosmic." Simply borrow or bring in another set and listen to it along with the set you suspect of being at fault,

using a different antenna, preferably not too near the one belonging to the first set. (An automobile radio will do if the car can be brought near the other set so that both can be heard at the same time.) If both sets fade (or distort) at the same time, you may be sure that the trouble is beyond correction by yourself or any radio serviceman. If one fades and the other doesn't, the chances are that the set that fades, if the difference is very distinct, has some defect of its own, usually associated with the action of a defective tube or volume control, or a deteriorated or defective condenser or resistor.

There are radio troubles which the simple testing procedure which has been outlined will not detect or localize, such as those which produce distorted reproduction or reduce the sensitivity of the set or cause howling or squealing under certain conditions. Nevertheless, the tests and observations that have been described will work in a good many cases, saving the time and the cost of a call by a serviceman, most of whom now have a good deal more work than they can do in the time available.

Bibliography

The following, with the two exceptions noted, are for fairly advanced workers in the field, or for laymen interested in a serious study of radio principles and servicing. There is so far as known no book which is practically very useful to persons who are strictly *beginners* or rank amateurs in radio servicing except possibly Everybody's Radio Manual, and Simplified Radio Servicing. One of these two comes as near to being a generally useful book for the home handy man or home amateur on radio receivers as any we know of. Nos. 2 and 3 are too technical to be of much use to the layman.

1. Manual of Simplified Radio, by Major J. G. Tustison, U. S. Army Signal Corps. Published by Allied Radio Corp., 833 W. Jackson Blvd., Chicago. 40 pages, 3¼ x 5 inches, illustrated. 10 cents. An invaluable brief, com-

pact, but meaty booklet that will be prized by anyone who already knows something about radio and electric circuits. Presents in brief compass many essential data and a score of ingenious and handy test and measurement ideas and expedients.

2. Principles and Practice of Radio Servicing, by H. J. Hicks. New York: McGraw-Hill Book Co., Inc. 1939. \$3.

3. War Department's Technical Manual—Radio Fundamentals, TM 11-455. July 17, 1941. For sale by the Superintendent of Documents, Washington, 25c.

4. The Radio Amateur's Handbook. Amateur Radio Relay League, Inc., West Hartford, Conn. 20th edition, 1943. 478 pages. \$1. Excellent, well-illustrated general reference for the person who already knows something about radio. Although the book's contents are especially devoted to the interests and problems of the amateur radio communications man ("ham"), it contains a wealth of information of great value to anyone working in the radio field.

5. RCA Receiving Tube Manual—Technical Series RC-14. RCA Manufacturing Co., Inc., Camden, N. J. 25 cents. A lot for the money. Includes valuable discussions of tube types, illustrates various tube applications, with a number of circuit diagrams of typical radio receivers and amplifiers. Its effective use calls for some knowledge of simple physics and mathematics.

6. Everybody's Radio Manual, prepared by the editorial staff of Popular Science Monthly. New York: Grosset & Dunlap. 1934 and 1942 (2nd printing, Jan. 1943).

\$1. Well illustrated and especially useful to help familiarize the reader with the different parts of common receivers, how to solder and make other repairs, and many other points of practical interest.

7. Simplified Radio Servicing by Comparison Method, by M. N. Beitman. Supreme Publications, 328 S. Jefferson St., Chicago. 1941. 108 pages. \$1.50.

What to Look for in Buying Shoes

By M. BECKETT HOWORTH, M. D., ORTHOPEDIC SURGEON, COLUMBIA-PRESBYTERIAN MEDICAL CENTER

THE BEST TYPE OF SHOE for the normal foot under average conditions is the oxford "tie" with a low broad heel, straight inner border, and toe broad enough for the individual foot.

The sole should be thick enough for protection, depending upon the weight of the individual, number of hours he is on his feet, and kind of surface stood upon. It should be flexible and flat. This would mean a full thickness sole for persons on their feet on hard floors or pavements several hours daily.

The upper should be of such material and construction as to cover the foot smoothly and hold the shoe snugly in place, without undue pressure anywhere. The shoe should be strong enough to hold its shape under the use to which it is put.

Leather is the material most commonly used for shoes. It varies in strength, flexibility, and appearance according to its origin, thickness, and treatment. Sole leather usually is made from cattle hide. The best grade comes from the middle of the back (saddle area). This wears about twice as long as leather from the belly, and 50 percent longer than leather from the shoulder. Second grade comes from the adjacent portion of the back and sides, third grade from the neck and lower sides, fourth grade from the belly, head, and legs. Leather may be split into two or more layers. The outer or top layer is toughest, but the under layers may be treated to give the appearance of the outer layer which is called "top grain."

Leather may be tanned by

vegetable extracts (tree barks containing tannin), or by other chemicals (sodium chloride, chromic sulphate, and soda). The vegetable-tanning method requires longer, and leaves the leather more porous, and hence the shoe is more comfortable in hot weather. The chrome method is quicker and produces a tough leather, but may damage the leather if it is done poorly. It is necessary to wax the chrome-tanned sole to make it satisfactorily water-resistant, except for wear in very dry regions. Chrome sole leather that has not been waxed becomes slippery on wet pavements. When impregnated with hard greases or waxes, this difficulty in part disappears, but the wear-resistance is decreased. Nearly all upper leather is chrome-tanned, but not much sole leather. Waxed chrome soles are often used on shoes that are to be given hard wear. It is considered that the most durable tannage is a combination of chrome and vegetable tanning, but this leather, like ordinary chrome leather, is quickly penetrated by water and becomes slippery on wet surfaces.

Leather may be polished, a "grain" may be imitated, or it may be given a special surface such as patent leather (a varnished surface), or suede leather (ripped by an emery wheel).

Varieties of Leather

Porous and thin leathers provide lightness, flexibility, and comfort with good ventilation, but get wet through easily and are not durable.

Calfskin is commonly used

for the uppers of shoes. It is thinner and more flexible than cowhide, but strong and durable. *Cowhide* may be used for the uppers of shoes requiring heavy wear. When chrome-tanned, cowhide or calfskin is deceptively called "elk" by the trade. *Deerskin* or *buck* is loose fibered, thus cooler than calf or "elk." "Genuine buck" is deerskin, but other skins are often called "buck." *Kidskin*, from goats, is thinner and softer than calf. It is pliable and porous and is very comfortable but scuffs easily. *Sheepskin* is often used to imitate kidskin, but is soft and scuffs and stretches easily. It is only suitable for linings, and house slippers. *Kangaroo* is tough and strong but likely to be uncomfortable. *Cordovan* leather, made from the rump of horsehide, is strong and durable, but stiff and heavy, and it is so nearly airtight as not to be as comfortable to wear as the more porous leathers. *Sharkskin* is used for the tips of children's shoes because of its great resistance to scuffing. *Reptile* or *lizard* skins are sometimes used for fancy shoes.

Construction

Most children's shoes and some workshoes are of the stitchdown type, single, two, or three sole, varying in strength and durability in the order named. The upper is turned outward and sewed to the sole or soles. Ordinary adult and some children's shoes are assembled according to one of the following methods.

The Goodyear welt is considered the most generally satisfactory method as it is flexible,

comfortable, durable, and easily repaired. The insole or innersole, upper, and a strip of leather around the edge of the shoe called the welt are sewed together by a stitch which does not penetrate the insole. The outer sole and welt are then sewed together.

The McKay or the Littleway methods are often used for medium-priced shoes. The insole and upper are tacked together, and the outer sole sewed to the other layers. The tacks may be troublesome in the McKay type, but are buried in the Littleway type.

In the genuine moccasin construction, derived from the moccasin used by the American Indian, the upper is continuous with the inner sole, being all one piece of leather stitched to the sole or soles. This construction is light and flexible, and allows maximum sole wear. The imitation or "mock" moccasin is really a welt shoe with a moccasin-style seam at the toe. The moccasin seam is more likely to give way than the ordinary box toe seam, and is not easy to repair. One of the chief advantages of the moccasin-type shoe is its roomy toe. Unfortunately this advantage has been partly lost in recent years by reshaping this toe into a semi-pointed variety, to make it appear "dressy." The moccasin was never a dressy shoe, and should not be now.

Soles

The cemented sole, in which the upper and sole are cemented together under pressure, is found mainly in women's thin-soled dress shoes. It is cheap, smooth, light, and flexible, but not durable, nor does it give good protection to the foot.

Soles may be nailed, pegged,

or screwed together, these processes being used mostly for cheap workshoes. Nails are apt to loosen and open pathways for water. They conduct warmth away from the foot, making it harder to keep the foot warm in snow or wet. Wooden pegs, on the contrary, are poor conductors, and swell and tighten when wet. Some fine handmade and some "comfort" shoes are sewn wrongside out and "turned."

Soles may be made of rubber (plain or permeated by threads like a tire), wood, rope, or a composition. Rubber soles are springier and quieter than leather, more waterproof, more flexible, less porous, and therefore warmer. They are also more likely to stretch out of shape, or break away at the stitching, and tend to wear out more in the middle of the sole than leather, and are more difficult and more expensive to repair.

Thick soles made of gum or crepe rubber are soft and springy, and protect the feet on hard floors and pavements, but spread easily and can be dangerously slippery on some grassy, wet, or oily surfaces. The rubber sole containing threads is more porous but stronger and spreads out of shape less than plain rubber. New rubber is not available for shoes now, and we have no information on the use of synthetic rubber in shoes. Reclaimed rubber is less durable than new rubber. Rubber soles grip well on most surfaces and are especially useful for sports and for gymnasium wear.

Wooden soles have been used in this country only for "variety shoes." They are noisy, hard, and stiff, and may be heavy. When the soles are made of narrow strips, they are more

flexible, and better ventilated, but the construction is apt to be flimsy. Wooden soles are fairly satisfactory for beach shoes but usually make a poor substitute for leather. Rope-soled shoes are suitable for beach and boating wear, but are not durable or comfortable enough for other use. They are, however, sometimes used in mountaineering for difficult rock climbing.

Heels

Heels may be made of leather, wood, or rubber, or plastic. Leather heels are strong and durable but heavy and noisy. Wooden heels are lighter, but more likely to come off. They



Typical Women's Heels

French Spanish Boulevard Cuban Flat

Reprinted from Merchandise Facts by permission of Research Bureau for Retail Training, University of Pittsburgh, Pittsburgh, Pa.

would be noisy if not capped with rubber. Rubber heels are springier and quieter than others, but wear and lose shape faster. Rubber is a good material for capping leather or wooden heels.

Heels vary in height, width, and shape. They affect the strength and appearance of the shoe, and the weight distribution of the individual. Wearing a shoe with no heel is apt to result in bruising the heel of one's foot, whereas a low heel will reduce the jolt given one's heel with each step. The low (average $\frac{3}{4}$ inch) broad heel, as wide as the back of the shoe, is best for ordinary wear.

The spring heel of the infant shoe is built with a bevel at its forward edge to prevent its catching, and for stability.

The high heel makes the

wearer appear taller, and a long foot look shorter, but has no other advantage except for cowboy boots, where it helps to prevent the foot from getting caught in the stirrup. One heel may be raised for persons having legs of unequal length. (Many persons are told by osteopaths and others, that their legs are of unequal length when they are not.) High heels increase the strain on the muscles of the leg and are conducive to many foot troubles, as pointed out in a previous article (CONSUMERS' RESEARCH BULLETIN, June 1943, page 18), in proportion to their height and narrowness.

The "commonsense" and military heels, 1 to 1½ inches high, usually result in little harm to the wearer, but others are too high for everyday wear.

The back surface of a high heel is usually curved forward, shortening the "base" of the foot and making balance more difficult. High heels are of course much more likely to break off than low heels, especially on uneven surfaces such as gratings, rocks, and stairs, and such an accident will often cause a sprain or other injury. High heels may be used occasionally for a short time for dress affairs, but the wearing of high heels all day at business or on the street is to be deplored for in time it usually does considerable harm. High heels are about as ill-adapted to work in an office or factory as a cutaway or tuxedo would be for a man in a similar occupation.

Straps

The strap shoe, and sandal, are cool and comfortable, but not durable, and are loose, and, therefore, not suitable for weak feet. The strap sometimes

causes enough localized pressure to produce a bony thickening and a painful callus. The pump is also well ventilated and produces no pressure over the instep, but is apt to be too tight on the heel and toes, otherwise it would fall off. The open heel shoe is likely to cause pressure from the strap over the back of the heel, with a painful callus and bony overgrowth. A broad, smooth and properly fitting strap is much less apt to cause trouble. The open-toe shoe has similar advantages and disadvantages.

Care of Shoes

Leather requires proper care for maintenance of good wear and appearance. Good leather is scarce now, and since rationing of shoes makes it necessary to make old shoes last longer, leather care is of increasing importance.

Leather is damaged by heat, cold, drying, or wetting, and by abrasion and various chemicals. It should be kept from these damaging factors as much as possible. Wetting may be avoided by using rubbers and by keeping shoes shined or waxed. Wet shoes should be dried *slowly*, at room temperature, rather than near a fire, stove, or radiator. Drying out and heating of leather may be avoided by keeping shoes away from radiators, stoves, a hot attic storeroom, or closet and other places or sources of heat. Wet shoes will freeze more easily than dry ones, and the ice or frost forming within the leather splits and cracks it. Shoes should be kept dry in cold weather, and not subjected to frequent or unnecessary changes of temperature.

Shoes wear by *friction* against concrete pavements, stones, and similar hard, rough sur-

faces; not nearly so much on carpets, smooth floors, macadam, grass, or dirt. The moment of contact is usually most wearing, and friction is greater with heavy persons and those who scrape or kick their feet. Sand or grit ground into the shoe, or adherent to it, increases the wear. Acids and alkalis damage leather, and should be avoided, or neutralized as soon as possible.

Damaged shoes should be repaired promptly. Heels should be kept level to prevent the shoe from rolling over and losing shape, as well as to avoid injury to the foot. Soles should be replaced as soon as the outer layer is worn through. Whole soles are better than half soles, but require more leather and cost more. Loose stitching should be re-sewed to prevent extra wear and strain as well as to protect the foot. Metal taps may be used at worn tips, heels, or edges, especially of work or children's shoes, but are noisy and may damage floors or rugs, and furniture.

Mud and dirt should be washed off shoes as soon as possible, using no more water than necessary. Ordinarily shoes may be cleaned with one of the good liquid cleaning-polishing solutions used by professional shoe shiners preliminary to applying the wax polish. The paste used for shoe shinings contains waxes which take a high polish and also reduce permeability to water. Shoes subject to dampness should be shined and polished often. "Saddle soap" of good grade is also a good cleaner, especially for fine leathers.

Outdoor shoes may be rubbed with "dubbin," a mixture of oils and waxes which protect the leather from moisture and abrasion, and help to compensate for the gradual loss of

the oils worked into the leather at the time of manufacture. It will soften the leather if used too freely, and this may be undesirable for certain shoes, e.g., ski boots.

Beef tallow or neat's-foot oil may be used for outdoor shoes, but must be applied more frequently as it is not resistant to wear. Castor oil is good but expensive. Mineral oils are usually undesirable because they soften the leather considerably. These preparations penetrate better if warm and if the shoes have been kept in a warm room. They should be rubbed in rather than merely applied to the surface. The soles may be similarly treated, or a heavier wax

used. In applying oil or dressing to leather, the seams and welt should be given special attention.

Leather shoes are not made "waterproof," but only "water repellant" at best, and even when well oiled and waxed should not be out in the weather more than necessary. Wet snow is even more harmful to leather than water.

Rubber is more easily injured than leather and requires even more care. It is waterproof when intact, and more suitable for wet and snow, but easily damaged by heat, sunlight, oils, abrasives, and contact with metals and certain chemicals. It should be kept

clean and protected.

Long life and good appearance of shoes will be favored by using shoe trees regularly whenever the shoes are off the feet. Outdoor shoes may be stuffed with wadded paper if suitable trees are not available.

Careful selection of shoes according to their purpose, material, and construction, and the needs of the wearer will repay the consumer in longer wear, greater comfort, and conservation of an important and necessarily restricted wartime necessity. Proper care of shoes will pay very real dividends in increasing their life and the comfort of the wearer.

PHONOGRAPH RECORDS

By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings, AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Fauré: *Pelléas et Mélisande-Incidental Music* (3 sides) & **Rimsky-Korsakoff: *Dubnushka*** (1 side). Boston Symphony Orchestra under Koussevitzky. Victor Set 941. \$2.50. Fauré composed this incidental music for the play by Maeterlinck. First movement of this suite, lyric prelude; second movement, entr'acte based on a spinning figure in triplets; third movement, *Mélisande's* death scene. On the odd side, the lively *Dubnushka*, a Russian folk song, fares better than on Victor 17731. **Interpretation AA**
Fidelity of Recording AA

Mendelssohn: *Symphony No. 3 (Scotch)*. Minneapolis Symphony Orchestra under Mitropoulos. 8 sides, Columbia Set 540. \$4.50. The melodies and harmonies of this programmatic symphony, one of Mendelssohn's best works, frequently suggest Scotch folk music. Mitropoulos' performance is virile, his recording more spacious than his recent Columbia Set 528. Sides 3, 4, 7 of my set swish badly necessitating a fidelity rating of B whereas a higher rating would be justified for a set, without this defect, if it exists. An equally good performance with superior recording is that of the Rochester Philharmonic under Iturbi in Victor Set 699. **Interpretation AA**
Fidelity of Recording B

Prokofiev: *Classical Symphony*. St. Louis Symphony Orchestra under Golschmann. 4 sides, Victor Set 942. \$2.50. While Debussy composed his *Sonata No. 3* discussed below, Prokofiev polished his *Classical Symphony*. His idea in composing this work was to "catch the spirit of Mozart and to put down that which if he were living now, Mozart might put into his scores." By straying a little from the classic form and by employing modern harmonies and sophisticated melodies, Prokofiev has composed an engaging work heard frequently in concert halls. The deft performance of the

St. Louis Symphony is recorded clearly, with wide range. Nevertheless, if I owned it, I would not part with the recording made more than a decade ago on Victor 7196/7 by the Boston Symphony under Koussevitzky whose interpretation remains unsurpassed. **Interpretation A**

Fidelity of Recording AA

Tchaikowsky: *Manfred Symphony*. Indianapolis Symphony Orchestra under Seitzky. 14 sides, Victor Set 940. \$7.50. Between his fourth and fifth symphonies Tchaikowsky composed this lengthy *Opus 58*, based on the dramatic poem of Byron, which rarely appears on programs of our day and has not been recorded before. The music describes in four movements Manfred's anguished wandering in the Alps, a fairy dancing in a waterfall, a pastoral scene, Bacchanale and death of Manfred. The performance reveals signs of careful preparation and the recording is full-bodied. In one set, used for testing, a soft swish occurred at times on sides 3 and 12 (opposite sides of the same disc) but in another set the swish was not present. **Interpretation AA**
Fidelity of Recording AA

CHAMBER & INSTRUMENTAL

Bach: *Four Chorale-Preludes*. Petri (piano). 2 sides, Columbia 71463. \$1. From Bach's compositions for organ Busoni arranged for piano these brief chorale-preludes: *Ich ruf' zu dir*, *In Dir ist Freude*, *Wachet auf*, *Nun freu't euch lieben Christen*. Petri plays them straight. If it were not for annoying buzzes the fidelity rating would be judged higher. **Interpretation A**
Fidelity of Recording B

Beethoven: *Quartet No. 12 (Op. 127)*. Budapest String Quartet. 10 sides, Columbia Set 537. \$5.50. First of the famous last six quartets of Beethoven. So much has been written of their celestial beauty that laymen sometimes withdraw in awe at the mere mention of these compositions.

Yet, to anyone who has developed an ear for serious quartet music, I commend this colossal work. The Budapest Quartet stands head and shoulders above its competitors. The recording is transparent and spacious, and surfaces are notably quiet. Obviously, one of the foremost sets of the year.

Interpretation AA
Fidelity of Recording AA

Debussy: Sonata No. 3 (3 sides) & Fauré: *Après un Reve* (1 side). Elman (violin), Mittman (piano). Victor Set 938. \$2.50. French modernist Debussy completed this, his last work, in 1917. Its unorthodox style, upon first hearing, does not please all listeners but after several playings its beauty generally becomes evident. Elman plays in astonishing good taste but stands a little too close to the microphone, in relation to Mittman, to achieve a partnership. A performance a trifle nearer Gallic perfection is that of Cortot and Thibaud on the withdrawn discs Victor 8183/4. The odd side of the new set offers the voluptuous Fauré song arranged by Elman as a demonstration of his famous tone but does not come as close to the composer's intention as does Maggie Teyte's singing on Victor 10-1002. The recording, with the exception noted, is first rate.

Interpretation A
Fidelity of Recording AA

Liszt: *Liebestraum No. 3* & *La Campanella*. Bartlett & Robertson (duo-pianists). 2 sides, Columbia 71452. \$1.00. Mr. & Mrs. Robertson play as many as 100 concert engagements a year. As the repertoire for two pianos is small, arrangements are frequently made, such as the two numbers here, which are more often heard as piano solos. *La Campanella*, a show piece, sounds a trifle wooden due perhaps to faulty microphone placement. For *Liebestraum No. 3*—THE *Liebestraum*—the microphone has probably been shifted, but the second piano seems too remote. Most listeners will cheer the superb teamwork throughout.

Interpretation AA
Fidelity of Recording A

Reger: *Ballet Suite-Waltz* & *Dubensky: Gossips* & *Prokofieff: Love for Three Oranges—March*. Whittemore and Lowe (duo-pianists). Victor 10-1041. 75c. Arrangements by the performers of short pieces, for my taste, should be played in the orchestral instrumentation conceived by the composers. The *Reger Waltz* seems hurried. Annoying buzzes heard on two records tested on a high fidelity reproducer disappeared on an inexpensive table model.

Interpretation A
Fidelity of Recording B

VOCAL

Donizetti: *L'Elisir d'Amore—Udite, Udite O Rustic*. Baccaloni (bass). 2 sides, Columbia 71383. \$1.00. The scene is that of Dr. Dulcamara's arrival among the villagers he plans to cheat. Although much of the comedy is lost out of the opera house, Baccaloni's superb characterization is at least suggested. The resonant recording chamber and the orchestra under Leinsdorf, newly appointed conductor of the Cleveland Orchestra, gives one the feeling of attending an actual performance with eyes closed. Record surfaces are remarkably quiet.

Interpretation AA
Fidelity of Recording AA

Verdi: *La Traviata—Ah! Fors' E Lui*. Sayao (soprano). 2 sides, Columbia 71451. \$1.00. In the expressive *andante*, Violetta meditates on her love for Alfredo whom she has just met. Thinking that her dreams are hopeless, she begins the dazzling coloratura aria vowing to forget him and to continue her life of "joying, toying, from flower to flower." As the curtain falls, even a lesser artist than the charming, talented Brazilian Bidu Sayao expects and generally gets an ovation. Miss Sayao has no serious competition when it comes to recordings of this complete scene. The recording chamber and the orchestra under Leinsdorf appear to be identical with those of Baccaloni's recording. Surfaces are just as quiet, too.

Interpretation AA
Fidelity of Recording AA

LIGHT

Coates: *By the Sleepy Lagoon* & *Dawes: Melody*. Tommy Dorsey and His Orchestra. 2 sides, Victor 10-1045. 75c. Two melodious waltz tunes played in concert style featuring bandleader-trombonist Tommy Dorsey.

Interpretation AA
Fidelity of Recording A

Farolito de Mi Barrio & Rodriguez: *La Cumparsita*. Carlos Molina's Tango Orchestra. 2 sides, Brunswick 80010. 75c. To me *La Cumparsita*, facetiously referred to as the national anthem of Argentina, is the peer of tangoes. The tango overside is run of the mill. The recording of neither equals the standard of today, lacking clarity and definition.

Interpretation AA
Fidelity of Recording B

Bim Bam Boom. Valdes (baritone). 8 sides, Decca Set 344. \$2.50. As a rule I enjoy Cuba's music, but this album leaves me cold because most of the songs are no more distinguished than the singing of Senor Valdes. The expert, comprehending Machito and His Afro Cubans supply the orchestral background. Best disc is Decca 18518 which offers *Nague* and *Drume Negrila*.

Interpretation B
Fidelity of Recording A

Boswell Sisters (vocal trio). 8 sides, Brunswick Set 1003. \$3.50. The innovating girls from New Orleans began their big-time career in 1931, the year these songs were recorded. Compared with the raucous blaring of a currently heard sister trio, the Boswells were bland. Accompanied by such present-day star instrumentalists as Jimmy and Tommy Dorsey, Joe Venuti, and Eddie Lang, the Boswells sing in this album *When I Take My Sugar to Tea, Wha'd Ja Do to Me, Roll on Mississippi Roll on, Shout Sister Shout, Shine on Harvest Moon, Heebie Jeebies, River Stay 'Way from My Door, It's the Girl*. The recording of the instruments, particularly, lacks definition. Surfaces are noisy.

Interpretation A
Fidelity of Recording B

Film Favorites. David Rose & His Orchestra. 8 sides, Victor Set P136. \$2.50. Included are the following selections which were featured in films: *Sweet Leilani, Lullaby of Broadway, When You Wish Upon a Star, The Last Time I Saw Paris, The Way You Look Tonight, Over the Rainbow, The Continental, Thanks for the Memory*. There is little to condemn or to praise in this tepid performance, principally instrumental with a few vocal refrains. Certainly Bob Carroll who sings *The Last Time I Saw Paris* doesn't equal Hildegard's expressive singing of that song in Decca Set 352. The recording is not always as clean as we have a right to expect, nor are all the records free of swish.

Interpretation B
Fidelity of Recording A

Hildegard Souvenir Album. Hildegard (soprano). 6 sides, Decca Set 352. \$2.75. Given a popular tune that has possibilities, Hildegard's suave artistry—not the quality of her voice—is likely to make me want to hear it again. In this seventh album of hers, the material surpasses that which she has recorded for several years. Included are *The Last Time I Saw Paris, Why Do I Love You, Darling Je Vous Aime Beaucoup, I Worship You, You Will Remember Vienna, A Little Cafe Down the Street*. The voice sounds clear and crisp whereas the accompanying orchestra sounds fuzzy.

Interpretation AA
Fidelity of Recording A

Quintet of the Hot Club of France—Vol. 2. 8 sides, Decca Set 334. \$3.50. A unique set of jazz records which presents a famous salon group consisting of violin, three guitars, bass. The selections include *Direct Appeal, My Melancholy Baby, Them There Eyes, Swing 39, Japanese Sandman, Love Letters, Twelfth Year*.

Interpretation AA
Fidelity of Recording A

Ratings of Motion Pictures

This section aims to give critical consumers a digest of opinion from a number of reviews, ranging from the motion picture trade press to Parents' Magazine which rates motion pictures not only on their quality as entertainment, but on their suitability in various aspects for children.

It should be emphasized that the motion picture ratings which follow do not represent the judgment of a single person but are based on an analysis of the reviews appearing in some 20 different periodicals.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended). (See CR BULLETIN, March 1943, for sources of the reviews.)

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

ad—adventure	mel—melodrama
bio—biography	mus—musical
car—cartoon	mys—mystery
com—comedy	nov—dramatization of a novel
cri—crime and capture of criminals	rom—romance
doc—documentary	soc—social-problem drama
dr—drama	trav—travelogue
fant—fantasy	war—dealing with the lives of people in wartime
hist—founded on historical incident	wes—western

A	B	C	
—	2	2	Above Suspicion.....war-com A
—	6	1	Action in the North Atlantic.....war-dr A
—	5	1	Aerial Gunner.....war-mel AYC
—	1	7	After Midnight with Boston Blackie.....cri-mel A
13	5	—	Air Force.....war-mel A
—	4	6	Air Raid Wardens.....com AYC
—	4	1	Alibi.....mys-mel A
—	2	4	All by Myself.....mus-com A
1	7	6	Amazing Mrs. Holiday, The.....war-mus-dr AYC
1	8	2	American Empire.....wes-dr AY
—	9	4	Andy Hardy's Double Life.....com AYC
—	2	5	Ape Man, The.....mel A
1	10	2	Arabian Nights.....mel A
—	1	6	Army Surgeon.....war-mel AY
—	2	9	Assignment in Brittany.....war-mel AYC
—	8	—	At Dawn We Die.....war-mel AY
—	2	1	Avenging Rider, The.....wes AYC
—	3	—	Bandit Ranger.....mus-wes AYC
1	5	2	Bataan.....war-tr A
1	4	3	Behind Prison Walls.....cri-com A
—	2	6	Behind the Eight Ball.....mys-mus-com A
—	3	1	Billy the Kid in Fugitive of the Plains.....wes AYC
—	2	1	Billy the Kid in Sheriff of Sage Valley.....wes AYC
—	1	4	Black Raven, The.....cri-mys AYC
5	8	2	Black Swan, The.....mel AYC
1	3	1	Bombardier.....war-dr AYC
—	3	5	Boogleman Will Get You, The.....com AYC
—	4	—	Boots and Saddles (re-issued).....mus-wes AYC
—	5	1	Border Patrol.....wes AYC
—	2	5	Boss of Big Town.....mel AYC
—	1	4	Boston Blackie Goes Hollywood.....cri-com AYC
—	3	2	Bowery at Midnight, The.....cri-mel A
—	1	2	Boy from Stalingrad, The.....war-dr A
1	3	—	Buckskin Frontier.....wes AYC

A	B	C	
—	2	9	Cabin in the Sky (all negro).....mus-com A
—	1	3	Calaboose.....cri-com AY
—	1	2	Calling Wild Bill Elliott.....wes AYC
—	5	3	Captive Wild Woman.....mel A
—	3	1	Carson City Cyclone.....wes AYC
—	7	7	Cat People.....mel A
—	4	3	Chatterbox.....mus-com AYC
2	11	1	Chetniks.....war-mel AYC
—	3	2	Cheyenne Roundup.....mus-wes AYC
1	8	4	China.....war-mel A
—	4	8	China Girl.....war-mel A
—	5	2	Cinderella Swings It.....mus-com AYC
—	3	6	City Without Men.....war-mel A
—	2	5	Clancy Street Boys.....cri-com AYC
2	2	1	Coney Island.....mus-com A
—	5	4	Corregidor.....war-dr A
—	1	3	Cosmo Jones in the Crime Smasher.....mel AYC
—	5	2	Cowboy in Manhattan.....mus-wes AYC
3	9	1	Crash Dive.....war-mel AY
—	8	6	Crystal Ball, The.....com A
—	3	—	Dawn on the Great Divide.....wes AY
—	3	—	Days of Old Cheyenne.....wes AYC
—	4	3	Dead Men Walk.....mys-mel A
—	2	2	Dead Men's Gulch.....wes AYC
7	1	—	Desert Victory.....war-doc AY
1	11	2	Desperados, The.....wes AYC
—	1	9	Dixie Dugan.....war-com AYC
1	1	1	Dr. Gillespie's Criminal Case.....mel A
—	7	2	Dr. Gillespie's New Assistant.....dr A
1	2	2	DuBarry Was a Lady.....mus-com A
—	4	7	Edge of Darkness.....war-dr A
—	3	6	Eyes of the Underworld.....cri-mel A
—	7	4	Falcon Strikes Back, The.....cri-mel A
—	6	3	Fall In.....war-com AYC
—	4	2	Fighting Buckaroo.....mus-wes AYC
—	1	3	Fighting Devil Dogs, The (re-edited).....war-mel A
—	3	1	Fighting Frontier.....mus-wes AYC
—	2	1	Fighting Sea Monsters.....doc AYC
1	9	1	Five Graves to Cairo.....war-mel A
—	8	6	Flight for Freedom.....war-dr A
—	4	1	Follow the Band.....mus-com A
1	12	2	Footlight Serenade.....mus-com A
2	10	—	Forever and a Day.....war-dr AYC
—	8	5	Frankenstein Meets the Wolf Man.....mys-mel A
—	—	—	Gallant Lady (See Prison Girls)
—	3	1	Ghost and the Guest, The.....mys-com AYC
—	2	1	Ghost Rider, The.....wes AYC
—	1	5	Gildersleeve's Bad Day.....cri-com AYC
—	2	3	Girls in Chains.....soc-mel A
—	1	3	Good Morning, Judge.....mus-com A
—	4	3	Gorilla Man, The.....war-mel A
—	4	5	Great Gildersleeve, The.....com AYC
—	3	5	Great Impersonation, The.....war-mel A
—	1	2	Gyandev of India.....biog AY
2	9	2	Hangmen Also Die.....war-dr A
—	14	2	Happy Go Lucky.....mus-com A
2	3	2	Harrigan's Kid.....mel AYC
—	7	4	He Hired the Boss.....cri-com AYC
—	7	4	He's My Guy.....mus-com A
—	7	2	Heart of a Nation, The.....war-mel A
—	12	3	Hello, Frisco, Hello.....mus-com A
1	6	2	Henry Aldrich Gets Glamour.....com AYC
—	6	2	Hi, Buddy.....mel AYC
—	5	2	High Explosive.....mel A
2	7	2	Hit Parade of 1943.....mus-com A
—	2	4	Hitler, Dead or Alive.....war-com A
1	9	4	Hitler's Children.....war-dr A
—	4	7	Hi 'Ya Chum.....mus-com AYC

A	B	C		
—	4	2	Hoppy Serves a Writ.....	wes AYC
—	4	4	How's About It?.....	mus-com AYC
10	5	—	Human Comedy, The.....	war-dr AYC
—	5	—	I Escaped from the Gestapo.....	war-mel A
—	5	6	I Walked with a Zomble.....	mys-mel A
—	9	2	Ice-Capades.....	mus-com AYC
—	2	4	Idaho.....	mus-wes AYC
2	11	5	Immortal Sergeant, The.....	war-dr AY
14	3	—	In Which We Serve.....	war-dr A
—	7	8	It Ain't Hay.....	com AYC
—	9	3	It Comes Up Love.....	mus-com AYC
—	6	3	Jacaré.....	animal AYC
—	3	2	Jitterbugs.....	mus-cri-mel A
—	6	2	Johnny Doughboy.....	mus-com AY
2	11	2	Journey for Margaret.....	war-dr A
—	3	3	Junior Army.....	dr AYC
—	1	6	Keep 'Em Slugging.....	cri-mel AYC
2	8	5	Keeper of the Flame.....	war-nov A
—	3	4	Kid Dynamite.....	cri-mel AYC
1	4	—	King of the Cowboys.....	war-mus-wes AYC
—	3	7	Ladies' Day.....	com A
—	5	4	Lady Bodyguard.....	mel A
—	5	2	Lady from Chungking.....	war-dr A
—	9	5	Lady of Burlesque.....	cri-com A
—	2	2	Last Will of Dr. Mabuse, The.....	war-mel A
—	2	2	Laugh Your Blues Away.....	com AYC
—	4	—	Law of the Northwest.....	mel AYC
—	3	1	Leather Burners, The.....	wes AYC
—	3	7	Leopard Man, The.....	cri-mel A
—	2	5	Let's Have Fun.....	mus-com AYC
1	9	5	Life Begins at 8:30.....	dr A
—	3	2	Little Joe, The Wrangler.....	wes AYC
—	2	5	London Blackout Murders.....	war-cri-dr A
—	1	2	Lone Prairie, The.....	mus-wes AYC
—	2	2	Lost Canyon.....	wes AYC
—	5	11	Lucky Jordan.....	war-mel A
—	5	4	Madame Spy.....	war-mel A
—	—	6	Man of Courage.....	cri-mel A
—	5	1	Mantrap, The.....	cri-mys AYC
—	7	6	Margin for Error.....	war-dr A
—	9	5	Meanest Man in the World, The.....	com A
—	5	3	McGuerins from Brooklyn, The.....	com A
1	4	2	Mission to Moscow.....	propaganda A
8	6	1	Moon Is Down, The.....	war-dr A
4	12	1	More the Merrier, The.....	war-com A
—	5	1	Mountain Rhythm.....	war-com AYC
—	3	2	Mr. Big.....	mus-com A
—	2	2	Mr. Lucky.....	cri-war-com A
—	6	1	Murder in Times Square.....	cri-mel A
—	2	3	Mug Town.....	cri-com AYC
5	7	1	My Friend Flicka.....	dr AYC
—	1	6	My Son, the Hero.....	war-com A
—	5	6	Mysterious Doctor, The.....	mys-mel A
1	11	—	Next of Kin, The.....	war-mel A
—	4	5	Night Plane from Chungking.....	war-mel AY
—	5	4	Night to Remember, A.....	mys AYC
—	3	4	No Place for a Lady.....	cri-mys AY
—	3	2	Old Chisholm Trail, The.....	mus-wes AYC
—	6	8	Once Upon a Honeymoon.....	war-dr A
—	5	5	One Dangerous Night.....	mys AYC
3	2	—	Our Lady of Paris.....	doc AYC
—	2	5	Outlaw, The.....	wes A
—	4	4	Over My Dead Body.....	mys-com A
1	5	4	Ox-Bow Incident, The.....	wes-mel A
—	13	4	Palm Beach Story, The.....	com A
—	1	2	Passion Island.....	mel A
—	5	3	Payoff, The.....	cri-mel A
—	6	—	Pilot No. 5.....	war-mel AYC
—	9	8	Pittsburgh.....	mel A
—	5	3	Power of the Press.....	cri-mel AYC
—	6	6	Powers Girl, The.....	mus-com A
—	4	2	Prelude to War.....	doc A
1	6	2	Presenting Lily Mars.....	mus-com A

A	B	C		
—	1	4	Prison Girls (Previously released as Gallant Lady).....	mel A
—	3	4	Purple V, The.....	war-mel AYC
—	2	4	Queen of Broadway.....	mel A
—	5	6	Quiet Please, Murder.....	war-cri-mel A
—	2	4	Raiders of San Joaquin.....	mus-wes AYC
—	3	2	Rangers Take Over, The.....	mus-wes AYC
—	3	11	Reap the Wild Wind.....	mel AYC
—	2	3	Redhead from Manhattan.....	com A
—	8	7	Reunion (in France).....	war-mel A
—	6	2	Reveille with Beverly.....	war-mus-com AYC
—	5	2	Rhythm of the Islands.....	mus-com A
—	4	3	Rhythm Parade.....	mus-com A
—	3	1	Riders of the Northwest Mounted.....	mel AYC
—	5	—	Ridin' Down the Canyon.....	mus-wes AYC
—	3	—	Saddles and Sagebrush.....	mus-wes AYC
6	5	1	Saludos Amigos.....	car AYC
—	2	3	Salute for Three.....	war-mus-com A
—	2	1	Santa Fe Scouts.....	wes AYC
—	2	2	Sarong Girl.....	mus-com A
—	5	2	Secrets of the Underground.....	war-mel AYC
—	3	6	Seven Miles from Alcatraz.....	war-mel A
8	8	—	Shadow of a Doubt.....	cri-dr A
—	4	1	Shantytown.....	com AYC
—	1	5	She Has What It Takes.....	mus-com A
—	6	4	Sherlock Holmes and the Secret Weapon.....	war-mel AY
1	5	2	Sherlock Holmes in Washington.....	war-mys AYC
—	3	2	Silent Witness.....	cri-mel A
—	6	1	Silk, Blood, and Sun.....	mel A
1	8	—	Silver Skates.....	mus-com AYC
—	6	8	Slightly Dangerous.....	com A
2	8	4	Something to Shout About.....	mus-com A
1	2	—	Song of Texas.....	mus-wes AYC
2	4	1	Somewhere in France.....	war-mel AY
—	2	3	Spitfire.....	war-biog AYC
—	2	3	Spy Train.....	war-mel A
—	4	1	Squadron Leader X.....	war-mel AY
3	1	—	Stage Door Canteen.....	war-mus-com AY
4	9	2	Stand By for Action.....	war-dr A
2	14	2	Star Spangled Rhythm.....	war-mus-com A
—	3	1	Stormy Weather (all negro).....	mus-dr A
1	5	1	Stranger in Town, A.....	cri-com AYC
—	3	1	Sundown Kid, The.....	wes AYC
—	1	3	Swing Shift Maisie.....	war-com A
—	3	2	Swing Your Partner.....	mus-com AYC
—	5	6	Tahiti Honey.....	mus-com A
—	8	4	Tarzan Triumphs.....	war-mel AYC
—	6	3	Taxi, Mister.....	com A
5	9	1	Tennessee Johnson.....	hist-dr AYC
—	1	2	Terror House.....	mys-mel A
1	5	1	They Came to Blow Up America.....	war-mel AYC
—	10	5	They Got Me Covered.....	war-com A
7	5	1	This Land Is Mine.....	war-dr A
—	7	7	Three Hearts for Julia.....	war-com A
—	8	2	Tonight We Raid Calais.....	war-mel A
—	2	4	Truck Busters.....	war-cri-mel AYC
—	4	—	Two Fisted Justice.....	wes AYC
—	1	7	Underground Agent.....	war-mel AYC
—	5	3	Undying Monster, The.....	mys-mel A
—	4	—	Virgin of Guadalupe.....	hist AYC
—	6	1	We are the Marines.....	doc AYC
—	1	2	West of Texas.....	mus-wes AYC
—	9	3	When Johnny Comes Marching Home.....	war-mus-com AYC
—	9	3	Whistling in Dixie.....	cri-mys AYC
—	4	9	White Savage.....	mel A
—	3	6	Wrecking Crew.....	mel AY
—	3	1	You Can't Beat the Law.....	mel A
—	4	4	Young and Willing.....	com A

The Consumers' Observation Post

[Continued from page 4]

LAWNS are being taken care of by the women folks these days since the boys who used to mow them after school and during the summer vacation are training for the Air Corps or Signal Corps, working in war plants, or on the farm. A good tip on lawn care comes from a Connecticut professor of agronomy who reports that his experience shows that it is wise to leave the clippings on the ground, particularly when the grass is cut once a week. By this method, he has found that the turf is heavier and the grass withstands the dry weather better than if the clippings are raked off and carted away.

* * *

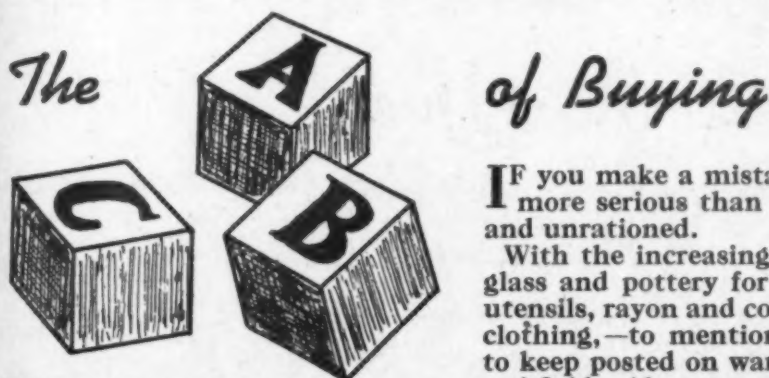
SHOE SOLES from a new synthetic made from a tightly woven cotton fabric impregnated with synthetic resin are reported to be awaiting WPB approval before they can be put into production by Bigelow-Sanford Carpet Company. These new soles are claimed to give 50 percent more mileage than grade A sole leather. Let us hope that if the product really does have high merit the WPB will not snarl the whole thing up in red tape so long that the much-needed substitute is lost in Washington's alphabetic and architectural mazes.

* * *

AUTOMOBILE DRIVERS who hold only A cards will be surprised to learn that it is costing them 20 to 30 cents per mile to operate their cars as compared to the 3 to 6 cents per mile of pre-gasoline-rationing days. Overhead expenses such as taxes, garaging, depreciation, extra care for battery and tires, extra oil changes, and other upkeep costs have to be paid just the same. While insurance premiums have been reduced somewhat for low-mileage drivers, special fees in the form of automobile use-tax stamps tend to counterbalance this reduction. It has been reliably estimated that it costs an A card holder more than \$200 a year to drive a little over a thousand miles. At that rate, walking isn't so unattractive for moderate distances as many would think.

* * *

NEW PRODUCTS: Renuzit Brush Top Spot Remover is in the form of a bottle with a removable sealing cap over a plush or pile fabric surface through which the cleaning fluid is filtered. The glass container holds 1-1/8 fluid ounces of cleaning fluid and sells for 10 cents at most Woolworth stores. It is also found in department stores. The device is really efficient in removing spots



YOU probably feel sometimes as if you had to learn all over again to buy wisely.

Will the new and heretofore little-used foods satisfactorily replace familiar but rationed items?

How can shoes be selected so that they are comfortable and wear well?

What are good brands of children's shoes?

The answers to these and many other questions are important to you today as never before.

of Buying

IF you make a mistake in buying nowadays, it is much more serious than in days when things were plentiful and unrationed.

With the increasing use of plastic and wood for metal, glass and pottery for enamel and aluminum in kitchen utensils, rayon and cotton instead of wool in blankets and clothing,—to mention just a few substitutes—you need to keep posted on wartime developments in the consumers' field. Almost everybody now needs a refresher course in how to be a wise buyer.

That's where *Consumers' Research Bulletin* can help you learn the new A, B, C's of careful buying. Each month it will bring you timely, up-to-the-minute information. It is now issued 12 times a year.

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Consumers' Research Bulletin

when an absorbent pad is placed under the spot. The solvent (potently and rather unpleasantly perfumed) is rather slow drying but this is one of the essential characteristics of cleaning solvents that do not constitute a serious fire or poisoning hazard.

A compass made by the Hull Mfg. Co., Warren, Ohio, selling at 25 cents at some of the 5-and-10-cent stores is an unusual bargain. The needle of this compass swings in a round box of colored plastic covered with a celluloid window. An exceptional feature usually found only in higher-priced instruments is that the "card" moves with the needle so that the direction is indicated without having to turn the compass case itself until the north-pointing needle lines up with the north-point of the card. Do not rub the celluloid "glass" of the compass, for on a dry day the frictional electricity produced may make readings unreliable.

Spee-Dee Chopper (marked, Kenberry Product, J. C. Brown, made in U.S.A.) is a small single blade chopper for parsley, nuts, raw vegetables, etc. It was sold for 10 cents at the Kresge stores and, considering that the blade is of stainless steel, is a good buy for the price, but it has two disadvantages. First, it has only one blade, which will make it slow to use. Second, the blade is straight, whereas for chopping in a round-bottomed bowl, a suitably-curved blade is more effectively used. Equivalent curved-blade mincing knives with two blades sell for something like 60 cents.

Peggy Prim is a hosiery and lingerie drier which consists of a horizontal bar suspended from a hook like a clothes hanger. From the bar are suspended four spring clothespins. The hook and bar on which the clothespins are carried are protected by rubber tubing to prevent the possibility of stains due to rusting of the metal parts. The device is sold by May Department stores at about 40 cents.

Cordura, a du Pont waterproofed rayon fabric, is available from Sears-Roebuck (Catalog No. 96-2382) at 85 cents a yard (plus postage). It can be sewn like any other fabric, though the seam will not be waterproof. It is useful for many purposes such as shower curtains, crib sheets, storage bags, mattress covers, water proof linings, and possibly, if nothing better be available, for babies' pants. The lighter weight fabric is 65 cents a yard plus postage and comes in green, white, light blue, or dusty rose (Catalog No. 96-2380). The heavier weight comes in white only. Actual test indicates that the product is truly waterproof as claimed, even under slight pressure and when the water rests on areas that have been creased or folded. The fabric can be used to make an emergency photographer's tray as for an unusually big enlargement by supporting it at its edges on a simple rectangular wooden frame of such depth as will give a suitable sag or depth to the tray. It can also of course be used for making a photographer's apron, or a cover for an enlarger.

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Off the Editor's Chest

(Continued from page 2)

particularly during the critical period of economic readjustment immediately following the cessation of hostilities." [Italics ours—CR.]

One possible explanation for the high point values that have been put on beef so that only a little over a pound a week of certain cuts is available for each individual may be that we are already undergoing "conditioning" for a meat-consumption level more typical of the depressed living conditions of Asia and Central Europe than those of the United States.

Certain occupational groups, as loggers, fishermen, miners, and railroad men have already complained that they are unable to carry on their jobs effectively on the amount of meat per person per week now allotted under rationing, and have petitioned for larger amounts. The loggers claim, for example, that they require at least 10 to 14 pounds of meat per week, or four to five and one-half times the actual rationing allowance. The fishermen demand about three times what they are now getting. A representative of the railway workers holds that if a soldier needs twice as much food as a civilian, a railroad man does too. A slight concession has been made recently to the demands of loggers, miners, fishermen, and others to the extent of allowing them to apply to their rationing boards for extra meat points amounting to 1.8 points per day (or 2 to 3 ounces of steak a day).

The officials of the OPA, in charge of setting the point values on meat, have so far given only grudging consideration to suggestions that *anybody* needs more meat than is at present permitted under rationing, holding that the present ration is sufficient and that only "a mental adjustment is necessary." (In so doing they, of course, make no allowance for

differences in type of digestion, differing preferences for and ability to digest and utilize fatty, carbohydrate, and vegetable matter, in respect to which men differ enormously, and women differ from men.)

A high Department of Agriculture official is reported as saying that "The needs [for meat] are psychological rather than physical"—which is surely an extraordinary position for a Department to take which has for the past five or ten years been trying to re-educate consumers from excessive use of starchy (grain) foods and has issued considerable propaganda on the desirability of a greatly increased meat and egg consumption.

There must be millions who have been puzzled by the sudden shortage in our meat supply when there have been reports on the one hand of the highest production of meat animals in history and on the other hand of a vigorous denial on the part of lend-lease authorities that any major portion of our meat supply is being sent abroad. One possible explanation of the situation may be found in considering the position of the War Food Administration, which is that we shall have to send large tonnages of our high protein foods to feed people throughout the world, along with the fact that the OPA's messing up of the food distribution situation by ill-considered rationing and price control orders has had the effect of making a large part of the most essential protein foods practically unavailable to the American consuming public. It may well be that this result has made available great supplies of foods for foreign shipment that would otherwise have been consumed at home.

It is extremely unlikely that many people in this country are aware of the menu that is being planned for them. Perhaps it is not necessary that they should be greatly concerned about the possibilities of the situation. An out-

standing fact in the history of food customs and eating habits is that major changes in diet are made slowly, over a long period of time. Quite likely they *must* be made slowly, if at all. In the experience of the Food Administration in the last war, it was found impossible to persuade certain European populations to eat foods which Americans had found wholesome and nutritious, such as corn, for example. They refused, and probably with sound reason, to eat foods which were strange to them and to which their digestive tracts were not accustomed. There is general agreement of all competent authorities on the indispenability of *animal*—as compared with vegetable—proteins and the impossibility of running the American type of life and maintaining our customary mental and physical productivity on a cereal (grain) diet. Meats contain proteins of an essential type not found in wheat, soybeans, and peanuts. Vitamin A itself, in addition, is found only in the tissues of animals and of fish. It will take a busy government indeed to sell bread and cereals to the American people as a substitute for steaks, roasts, chops, and bacon, though the efforts to try to do this may prolong for some months longer the serious breakdown of our food economy already brought about by the OPA's overturning the whole scheme of meat distribution through its interminable maze of rationing rules, price ceilings, and "roll-backs."

Meat is traditionally the accepted and favorite food in this country, and its general availability and cheapness, indeed, ranked high among the factors that brought millions to the United States as immigrants. Food-control officials will be well advised to read up on their dietary history and find ways of *increasing meat production and facilitating its distribution*, rather than evolving a costly and wasteful national propaganda campaign for the elimination of meat from the American diet.



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Buying
War Bonds
and
Stamps**